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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

* AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE *

PUBLISHED AT LONDON, ONTARIO. APRIL 13, 1905. WINNIPEG, MANITOBA. No. 655

Bell

PIANOS AND ORGANS

ARE FAVORITES EVERYWHERE BECAUSE THEY ARE THE BEST

THE **BELL** Piano and Organ Company, LIMITED. GUELPH, - ONTARIO.

Catalogue No. 40 tells more about them. It is free to all who ask.

Paterson's Wire Edged Ready Roofing



Don't cost as much as shingles. Made in Canada for 20 years. Fireproof and sanitary. Easy to put on. Hard to wear out.

Isn't that the kind of Roofing Material you're looking for? For sale by hardware merchants everywhere. Samples, testimonials and other information from :

The Paterson Mfg. Company, TORONTO. Limited, o MONTREAL.

Money Makers



These are our NEW **Combination Moulds**

Rapidly producing Concrete Drain Tile and Wall Curbing, with telescopic or plain joints. Sizes, from 4 to 24 inches in diameter. Every municipality needs such tiles. Send for particulars and prices.

Sawyer & Massey Co., ROAD MACHINE DEPT., HAMILTON, CANADA.

LOUDEN JUNIOR Hay Carriers

There are only two first-class Hay Carriers in the market.

1st.—For Forks and Short Slings—LOUDEN'S JUNIOR

2nd.—For Long Centre Trip Slings—LOUDEN'S JUNIOR SLING CARRIER.

Our Double-headed Steel Track will always give satisfaction. We make everything in the Hay Carrier line. LOUDEN MACHINERY CO., Guelph, Ont., Manufacturers of Hay Carriers, Barn-door Hangers, Feed and Litter Carriers, Barn-door Latches; in fact, everything for a barn or stable. Write for catalogues, circulars and prices.

BISSELL'S STEEL ROLLER




The heavy steel axle gives it a good backbone. Then the roller bearings, with the draw-bar for low hitch, are improvements that please shrewd farmers who want only the best. Built in lengths suitable for all the Provinces. Send your name and address for full particulars. T. E. BISSELL, DEPT. W., ELORA, ONT. None genuine without the name "Bissell."

BRITISH COLUMBIA KELOWNA

The largest Fruit-growing Valley in the FAR-FAMED OKANAGAN. Apply to us for all information regarding Fruit and Farm lands, town and residential lots with lake frontage. Land at \$10 per acre up. Choice fruit lots in and joining town, ample water for irrigation. All information possible willingly given. Write for prices.

CARRUTHERS & POOLEY, Real Estate Agents. Kelowna, B. C.

Melotte CREAM SEPARATORS



Tubes and inaccessible corners are breeding beds for bacteria. That's why there are none in the Melotte.

WRITE FOR BOOKLET.

R. A. LISTER & Co., LTD. MONTREAL.

HIRST'S PAIN EXTERMINATOR

THE GREATEST PAIN LINIMENT KNOWN

A good investment that pays dividends all through life is a course of training in any of the Departments of the

NORTHERN Business College

Owen Sound, Ont. Four complete courses of study. Best equipped Business College premises in Canada. The only Business College owning its own College building. A large staff of competent and painstaking teachers. Our graduates are most successful. Just ask them. Full particulars sent to any address free. G. A. FLEMING, Principal.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

SEEDS

That can be depended on every time to produce the best crops. Results have been proving this a fact for the past 37 years.

EWING'S

Free, our '05 Illustrated Seed Catalogue. Write for it NOW—it explains.

William Ewing & Company
Seedsmen,
143-146 McGill St., Montreal.

Trees! Trees! Trees!

We have a full line of Fruit and Ornamental Trees for spring, 1905, at lowest possible prices.

Headquarters for packing dealers' orders.

Farmers wishing to buy first-class stock absolutely first hand and without paying commission to agents, should write to us at once for a catalogue and price list.

Don't wait until the last minute, as you will be disappointed. Place order early and secure the varieties you want.

Correspondence solicited.

WINONA NURSERY CO.
WINONA, ONT.

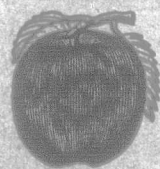
FARM LABORERS

Farmers desiring help for the coming season should apply at once to the Government Free Farm Labor Bureau. Write for application form to

Thos. Southworth
Director of Colonization, Toronto.

Apple Trees

That are Apple Trees. Write for Special Prices from 100 up.

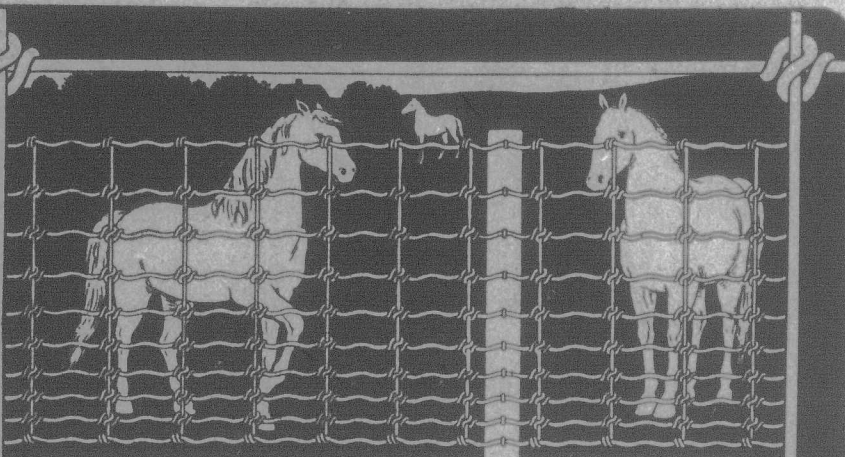


Fruit and Ornamental Trees, Shrubs, Roses, Vines, Berry Plants; Seed Potatoes, Eureka and others.

None Better. 25 years direct dealing with satisfactory results. No agents. Send at once for Central Nurseries' best Catalogue; it's Free. There is splendid value in it for you when ordering early. Try us to-day.

A. G. HULL & SON, St. Catharines, Ont.

Stock Farm for Sale—Burnbrae Stock Farm, containing 149 acres, basement barn, dairy, hen ice and engine houses, two dwellings, up to date in all respects, together with all thoroughbred stock, implements, etc. Holstein and Jersey stock for sale. Write for particulars. Apply J. W. ROBERTSON, Vankleek Hill, Ont.



IDEAL WOVEN WIRE FENCE

Made to Last.

This fence is made to keep your live stock in and your neighbor's out. It will do this not only for this year and next year, but for many years to come. To do this the fence must be strong and durable. The IDEAL is both, because we use large gauge (No. 9) hard steel wire for both stays and horizontals, securing them with the "Ideal knot" that will not slip. The wire is well galvanized, being tested thoroughly by us before being made into fences.

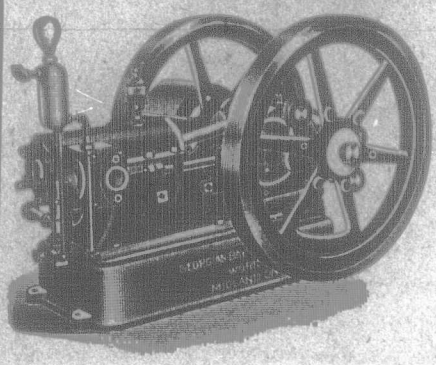
We cannot tell you all about it here, because we have much to say. If you are interested in fencing, write us for our illustrated catalogue. It shows a style for every purpose, and tells you why the IDEAL is the best value. Our catalogue also shows the Ideal All-metal Farm Gate.

All that is necessary is to send us your address on a postal card. Do it to-day.

THE MCGREGOR-BANWELL FENCE CO., LTD., Walkerville, Ont.

Reliability is Assured

WHEN YOU PURCHASE A



"Midland" Gasoline Engine

BECAUSE OUR

2-YEAR GUARANTEE

takes care of that point for you, and then we are pretty careful to see that you get the best that can be got, or otherwise we would not care to get behind our engines as we do. This is a point worth considering.

Georgian Bay Engineering Works
MIDLAND, ONT.

Selected Farm Lands for Sale In Manitoba

ALL SUITABLE FOR MIXED FARMING.

UNIMPROVED

- No. 1. 320 acres, near Swan River, O. N. R. Price.....\$3,200
- No. 2. 240 acres, near Poplar Point, O. P. R. Price..... 1,700
- No. 3. 160 acres, near Oakville, C. N. R. Price..... 2,400
- No. 4. 240 acres, near Willow Range, O. N. R. Price.... 3,000
- No. 5. 240 acres, " " " Price.... 3,000
- No. 6. 160 acres, " " " Price.... 2,500
- No. 7. 320 acres, near Portage la Prairie. This farm has house, stable, and other buildings, with over 100 acres cultivated. Price..... 5,000
- No. 8. 160 acres, near Patrick station, C. P. R., Pheasant Hill Branch, Sask.

These farms will be sold on reasonable terms. For further particulars, address

THE G. B. HOUSSER LUMBER CO., LTD.
PORTAGE LA PRAIRIE, MAN.



FOR SALE BY ALL LEADING JOBBERS.

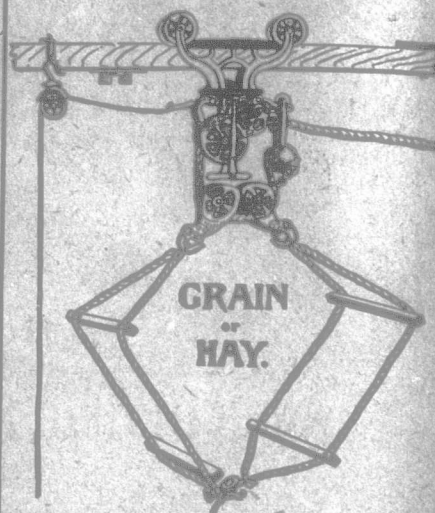
CLIP YOUR HORSES

with 20th Century Clipper \$17.50

They feel better, look better, work better, and are less liable to catch cold. Don't let your horses stand in the barn all night with a heavy damp coat of hair on. It weakens them and they lose flesh. If clipped they dry out quickly, gain flesh and can be groomed in one fourth the time. Weighs only 15 lbs. Clips a horse in 30 minutes. Send for Catalogue H CHICAGO FLEXIBLE SHAFT CO., 110 La Salle Ave. CHICAGO, ILL.

Tolton's No. 5 Fork and Sling CARRIER

Unequalled for simplicity, durability, and efficiency.

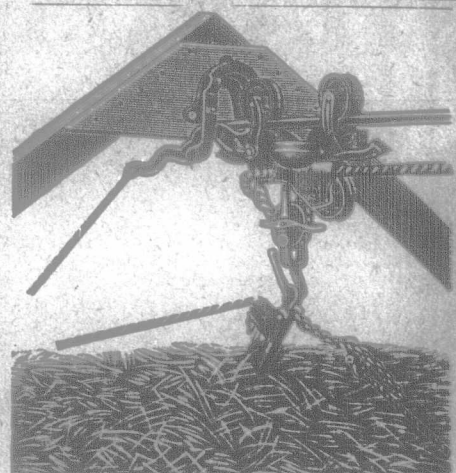


ALL EYES ARE ON THIS INVENTION

Thousands now in use, giving the best of satisfaction.

All kinds of Sling, Fork and Carrier, suitable for wood or steel track. Send for descriptive circular or see our local agent.

TOLTON BROS., Ltd.
P. O. Box 476, GUELPH, CAN.



THE OSHAWA ROD TRACK CARRIER FOR 1905

Manufactured by

THE OSHAWA HAY CARRIER WORKS,
OSHAWA, CANADA.

Agents wanted in unrepresented localities.

QUEENSTON CEMENT

Sold direct from the manufacturer to the consumer.

Don't be misled by statements of agents handling cement paying large commissions. Go yourself and see Queenston walls and floors built in your own locality. Our barrel contains as many cubic inches as any other cement, and as cement is gauged by measure, not by weight, your cement will go as far. Write us for all information. Freight rates and estimates cheerfully given. 70c. per barrel, strictly cash, f.o.b. cars Queenston. Go in with your neighbor and get benefit of carload rates.

ISAAC USHER, Queenston, Ont.

BOYS FOR FARM HELP

The managers of Dr. Barnardo's Homes invite applications from farmers, or others, for the boys who are arriving periodically from England to be placed in this country. The young immigrants are mostly between 11 and 13 years of age; all will have passed through a period of training in Dr. Barnardo's English Institutions, and will have been carefully selected with a view to their moral and physical suitability for Canadian life. Full particulars as to the terms and conditions upon which the boys are placed may be obtained upon application to Mr. Alfred B. Owen, Agent Dr. Barnardo's Homes, 214 Farley Ave., Toronto.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

PAGE FENCE — The WHITE Brand

8"	11/2
8"	-
7"	-
7"	-
7"	-
6"	-
5"	-
4"	-
3"	-
3"	-

All Page Fencing and Gates shipped from our factory in future (except our railroad fencing) will be painted WHITE, a trade-mark as it were, in order that ours can be readily distinguished from others at a glance. There now are other fences which at first appearance look much like ours though they are much different in quality. By coating ours WHITE there can be no confusion among buyers.

While this coating of WHITE gives Page Fence and Gates a distinguishing feature, it will also be a preservative as an aid to the galvanizing in preventing rust. It is now commonly known to everyone that even galvanized wire will, in certain localities, rust.

In addition to these, we are making several other changes and improvements in our goods that will make them still better than ever, and still further ahead of all competitors. Get from us, or local dealers, printed matter explaining everything about our Fences, Gates, Lawn Fences and Netting.

Remember:—Page Fence is WHITE, WHITE, WHITE. And Page Gates are WHITE.

PAGE WIRE FENCE CO. LIMITED

WALKERVILLE MONTREAL TORONTO ST. JOHN WINNIPEG

"Page Fences Wear Best."



London Fence

THOR, (Greek God of Thunder and Friend of Man.)
To the Farmers of Canada.

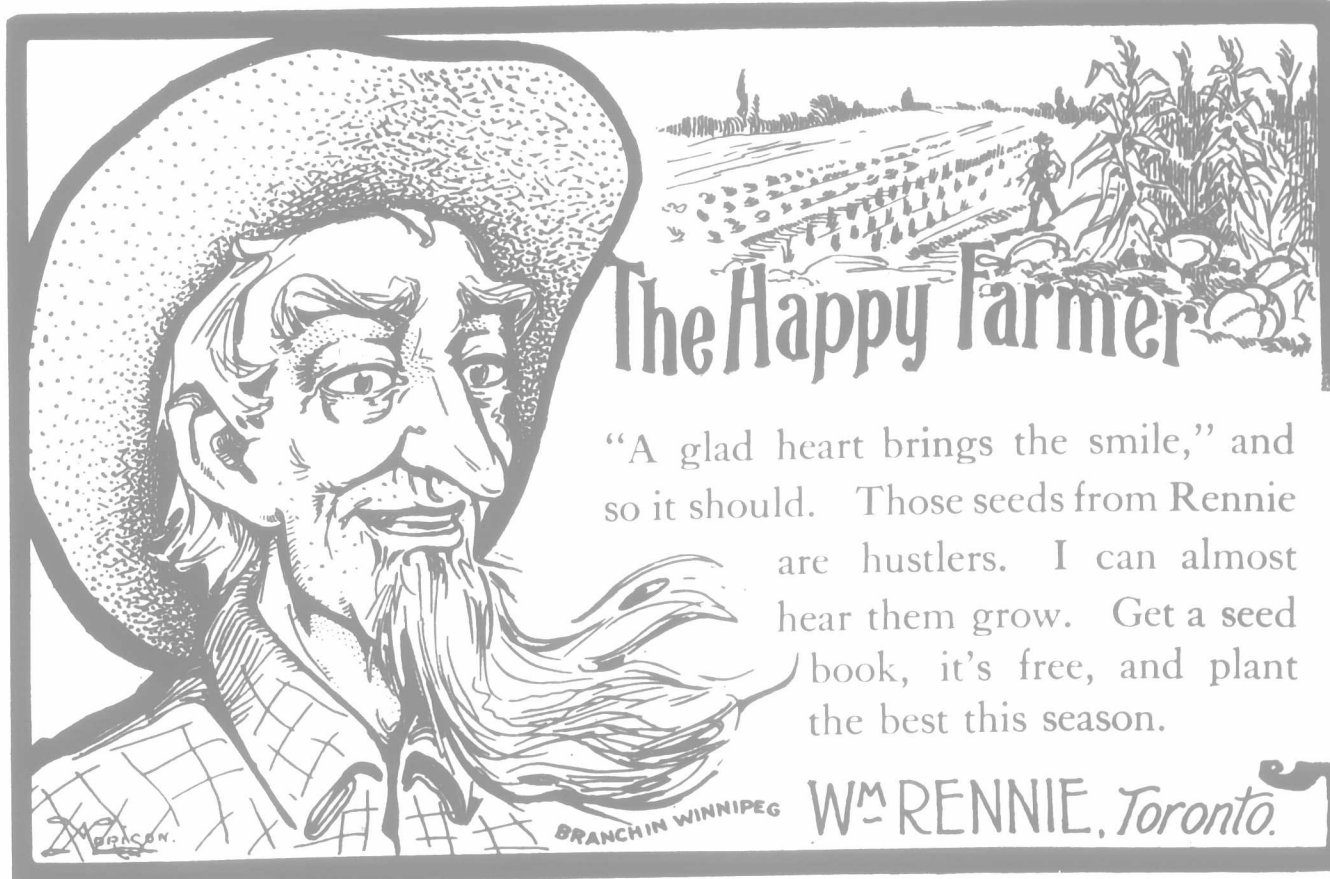
Know ye, that for this poor substitute on which my hand doth rest, Thinking 't would less time require to build, Its poor deluded owner paid a price full double what would purchase, Even same weight and length of peerless "London"—coiled, not kinked. Yet, well 'tis known that strand on strand, each by itself well stretched Of famous "London" spring steel—coiled, not kinked, Much stronger makes the fence, nor longer take they, Ever to make tight or stretch than doth this flimsy, ready-woven—kinked, not coiled.

The weaving later may be done, at leisure, full fifty rods per day or more. And all neat, strong, symmetrical, and pleasing to the eye—coiled, not kinked

London Fence Machine Co
 LONDON AND CLEVELAND. LIMITED.

Western Agents—A. E. Hinds & Co., 602 Main St., Winnipeg.
 Quebec and East. Ont.—Phelps & Smith, 60 McGill, Montreal.
 Maritime Agent—J. W. Boulter, Summerside, P. E. I.

Write for our new book, "Practical Economy in Wire Fence Construction." Free to farmers. Reliable agents wanted in every section to sell London Machines, Wire and Fence Supplies. Write quick.



The Happy Farmer

"A glad heart brings the smile," and so it should. Those seeds from Rennie are hustlers. I can almost hear them grow. Get a seed book, it's free, and plant the best this season.

W^m RENNIE, Toronto.

BRANCH IN WINNIPEG

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

QUESTIONS AND ANSWERS.

- 1st.—Questions asked by bona-fide subscribers to the "Farmer's Advocate" are answered in this department free.
- 2nd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.
- 3rd.—In veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.
- 4th.—When a reply by mail is required to urgent veterinary or legal enquiries, \$1 must be enclosed.

Miscellaneous.

GROWING STRAWBERRIES BY THE BARREL PLAN.

Do any of your numerous readers grow strawberries by the barrel plan? If so, will they kindly give all information. What size of barrel; how far apart the holes; should top of barrel be covered; also give fall, winter and spring treatment? A. H.

Ans.—Experience of our readers is invited.

WHOLE VS. GROUND OATS—BARLEY FOR PIGS.

Which do you think is better for young horses through the spring and summer work on the farm, ground oats or whole oats?

2. Do you think barley meal mixed with bran too strong feed for a sow that is suckling young pigs? J. M. B.

Ans.—1. Except in the case of old horses, whose teeth are uneven, whole oats may as well be given; but it is good practice to throw a quart or two of bran in with the ration, which makes the horses chew their oats better. A little clean chaff or cut hay will answer the same purpose, or in the absence of either, one might give one-half the feed of whole grain and one-half of ground thrown on top to insure more complete mastication.

2. No, provided sow and pigs get exercise and access to earth or grit of some sort.

INSERTING COMB FOUNDATION.

What is the best method of inserting comb foundation in the section boxes? Am troubled with sagging when I completely fill the section, and a good many culls result. J. B. W.

Ans.—Good foundation hung the "strong way" in sections does not sag appreciably, and the section should be completely filled. Foundation made by the Weed process sags least, but others are good. What I mean by "the strong way" may be seen by sighting over a piece of foundation horizontally. One way it looks flat, the other way it is ridged like a washboard. Now, if you hang it in the sections with these ridges running up and down, it does not stretch or sag; but hung with the ridges horizontal, the heat of the hive and weight of bees will take the "kink" out of it, and let it down so as to buckle out at the bottom and spoil the sections. This is a most important point which some so-called authorities refuse to admit. They recommend makeshifts for filling the section with foundation, which are not at all necessary if the foundation is hung the strong way.

MORLEY PETTIT.

INCUBATOR QUERIES.

1. Can eggs be successfully hatched with dry heat in an incubator? If not, how should moisture be applied?

2. What degree of heat should be kept?

3. Should eggs be cooled down to 60 degrees every day? A. T. Muskoka, Ont.

Ans.—1. Yes, under certain conditions. It depends on the construction of the incubator. There are a great many pros and cons to the question, making it impossible to give a satisfactory categorical answer. Follow the directions accompanying your machine.

2. 103 degrees.

3. They should be cooled, but not to 60 degrees. In a warm room, they may be safely left out half an hour or so; in a cold room on a cold day, leave them out only while turning them. In this matter, notice the habit of the hen.

While marrying a Walworth couple recently, the Rev. A. W. Jepson, the vicar of St. John's (who told the story at a board school last night), pointed out to the bride, who refused to say "obey," that if she did not say the word there would be no marriage. "Oh, that's all right," said the bridegroom. "I'll see about that when I get 'er 'ome."

Simmers' Seed Catalogue

FOR 1905

is now ready. The largest and handsomest Canadian catalogue, describes hundreds of new and standard varieties of Farm, Vegetable and Flower Seeds, etc.

This beautiful 1905 guide is

Now Ready

and gives full directions for successful gardening. It tells all about Simmers' reliable Seeds, Plants and Bulbs.

Why they are preferred and planted by experienced field, vegetable and flower growers.

Just the garden book you will be glad to receive and study.

All our customers will receive a copy without making application.

Sent to any one interested in farming, gardening, etc., **FREE.**

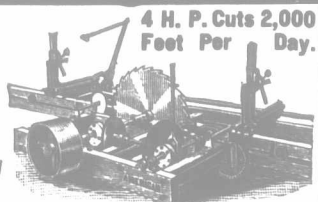
J. A. SIMMERS,

143, 145, 147, 149, 151 King St., East

TORONTO, ONT.

CANADA'S PREMIER SEED HOUSE

IF YOU SAW



4 H. P. Cuts 2,000 Foot Per Day.

lumber or saw wood, make lath or shingles or work lumber in any form you should know all about our improved

AMERICAN MILLS.

All sizes saw mills, planers, edgers, trimmers, engines, etc. Best and largest line wood working machinery. Write for free catalogue and name of Canadian agents.

American Saw Mill Mch'y. Co., New York City.
624 Engineering Bldg.

WRITE FOR **CIRCULAR FOR RAW FURS** To **McMILLAN FUR & WOOL CO.** MINNEAPOLIS, MINN. DEPT. 20

Choice Seed Grains—Mandscheuri barley, Emmer, Tartar King oats. All grains well cleaned and graded, at reasonable prices. Write for samples and particulars. **JAMES DICKSON,** "Glenairn Farm," Orono, Ont.

Clean Skimming—Long Life
Easy Operation—Convenience
The machine that makes good

DeLAVAL Cream Separators

THE DeLAVAL SEPARATOR CO.

77 York Street

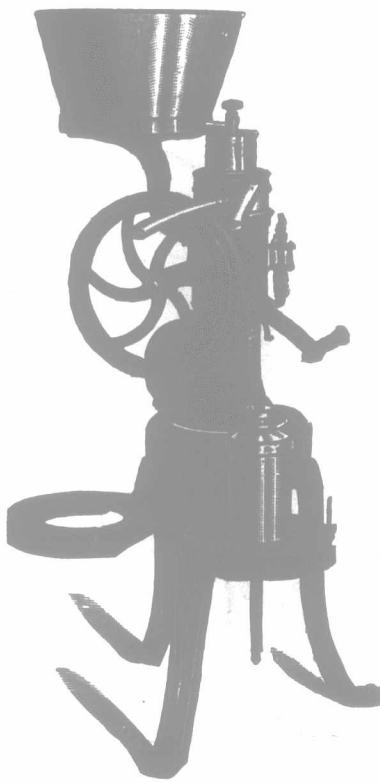
WINNIPEG

TORONTO

MONTREAL

GRAND PRIZE ST. LOUIS

NATIONAL GREATNESS



Depends on the Prosperity of the Farmer.

The prosperity of the farmer depends largely on having a

National Cream Separator

which will save time and labor, and insure additional profits in the dairy.

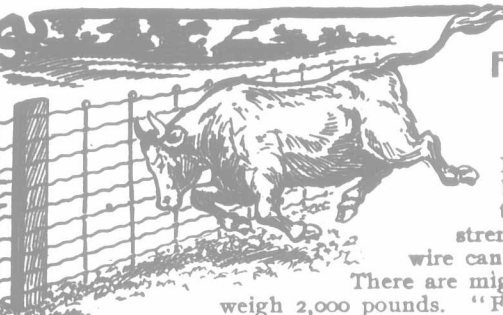
Many a farmer has lost the price of a Separator by delaying purchase. Buy now. The National soon

Pays for Itself

We know the merits of our machine, fear no opposition, and solicit a free trial.

Don't worry about the price, the extra cream will settle for the National.

The **RAYMOND MFG. CO., Limited,** GUELPH, ONTARIO.



Frost Wire Fence is Cattle-Proof

Frost Wire Fence is high carbon steel, coiled spring wire, tested to 2,000 pounds tensile strength. Each separate strand of wire can support 2,000 pounds weight. There are mighty few horses and cattle that weigh 2,000 pounds. "Frost" UPRIGHT WIRES are heavy. Each one supports its own share of the strain. This prevents sagging in the middle. Uprights are immovably locked to the running wires by the

Frost Lock

It does away with bends and bows, crimps and kinks, soft ties and weak spots, and preserves the whole strength of the fence. Galvanized by electricity so the lock can't rust.

FROST WIRE FENCES stand weight, strain and climate—as strong ten years after as the first day they are put up.

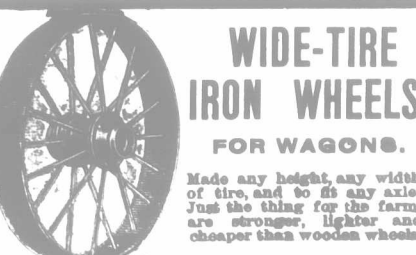
Write for catalogue, which tells all about the Frost Fence and Frost Lock. It's free.

FROST WIRE FENCE CO. Limited

WINNIPEG, Man.

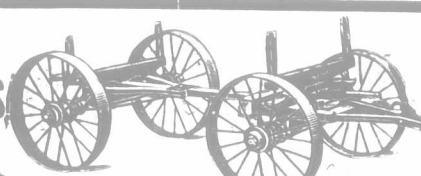
HAMILTON, Ont.

CLEVELAND, Ohio



WIDE-TIRE IRON WHEELS FOR WAGONS.

Made any height, any width of tire, and to fit any axle. Just the thing for the farm, are stronger, lighter and cheaper than wooden wheels.



OUR QUEEN CITY HANDY WAGON

with iron wheels and wide tires. Is low and convenient for farm and general work. Made by skilled workmen and of the best material. Guaranteed to carry five thousand pounds. Write for catalogue with full description of both wheels and wagon.

DOMINION WROUGHT IRON WHEEL CO.

ORILLIA, ONT. LIMITED.

H. F. ANDERSON & CO., Winnipeg, Agents for Manitoba and the N.-W. T., always carry a full stock of our "Handy Wagons."

Sharple's Tubular Separators

Tubulars Find Gold In Milk

Good butter is worth 20 to 30 cents a pound. Butter is worth only one cent a pound as stock food, yet farmers using gravity skimmers—pans and cans that leave half the cream in the milk—feed that half the cream to stock, then wonder why dairying don't pay. Can't find gold without digging. Can't make dairying pay big profits without getting all the cream.



TUBULARS

Dig Right Down

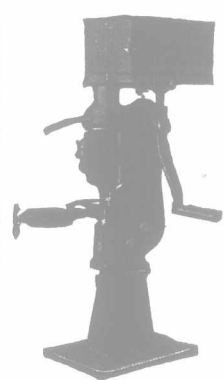
to the paying level—squeeze the last drop of cream out of milk—make dairying pay. Tubulars are the only modern separators. The picture shows them. Write for catalogue G-193.

Canadian Transfer Points: Winnipeg, Toronto, Quebec, St. John, N. B., Calgary, Alberta. Address

The Sharple's Co. Chicago, Ill.

P. M. Sharple's West Chester, Pa.

Farmers and Dairymen



It would be well to see the

OXFORD Cream Separator

before buying. Do not be persuaded into buying an old-style Separator, but get the Low-Down OXFORD, which is new and up-to-date. Write for catalogue.

Durham Mfg. Co.

Agents for Eastern Ontario: Mr. G. A. Young, 74 Maple Street, Ottawa, Ont.

Agents for Quebec: Messrs. E. Kenney & Co., 143 McGill St., Montreal, Que.

CANCER

R. D. Evans, discoverer of the famous Cancer Cure, requests any one suffering with cancer to write him. Two days' treatment will cure any cancer, external or internal. No charge until cured. **R. D. EVANS, Brandon, Man. o**

CURES SCIATICA and RHEUMATISM WESTERN RHEUMATIC POWDER AND BLOOD PURIFIER.

New vegetable remedy, giving wonderful results. Send for one box, two weeks' treatment, and know that it will benefit you. We guarantee it. \$1 a box, or six for \$5, prepaid to any place in Canada. Sold only direct to patients. Send to us.

RHEUMATIC REMEDY CO., Peterboro, Ont.



ROCK SALT for horses and cattle, in ton and car lots. Toronto Salt Works, Toronto.

Advertise in the Advocate AND GET BEST RESULTS.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

The Farmer's Advocate

and Home Magazine.

"PERSEVERE AND SUCCEED."

ESTABLISHED 1866

VOL. XL

LONDON, ONT., AND WINNIPEG, MAN., APRIL 13, 1905

No. 655

EDITORIAL.

Value of the Corn Plant.

The rank and file of Canadian farmers have, we believe, as yet, failed to realize the paramount importance and value of the Indian corn plant as a food for farm stock. To our neighbors of the United States it is the mainstay of their farming operations, and one of the main secrets of their success as a wealth-producing people. It is maize, more than any other factor, that gives them an advantage over us in the cattle markets of the mother country, to which we both cater. It is true they have a larger area of country especially adapted to the growth of corn, owing to climatic and other conditions, but we are confident the time is coming when this great feeding crop will be grown in Canada on a much larger scale than at present. American farmers now flocking into our Northwest Provinces, and who have had experience in corn-growing in the Western States, are not without faith that when our prairie lands are generally cultivated and drained, and the earliest maturing varieties of corn are propagated, this crop will yet be successfully grown northward far beyond its present limits. And in our Eastern Provinces, when farmers more generally come to properly appreciate the value of the clover plant as an improver of the condition of the soil as well as a stock food, the combination of clover and corn in a short rotation of crops, will be generally acknowledged as essential to the most successful agriculture. With reasonable care in the selection of seed and cultivation there is no surer crop than corn, and no other crop furnishes so great a bulk of grain and fodder combined. In the sections of the country where corn ripens before autumn frosts come, the grain is found a convenient, wholesome and fattening food, and, fed in combination with oats or bran and clover, makes a fairly well-balanced ration for any class of stock, while the stalks may also be used to good advantage as fodder. But to the great majority of our farmers the ensilaging of corn is the surest and safest method of handling the crop satisfactorily, and is the plan most in favor and most likely to be generally adopted. The necessary preparation of the land for a corn crop requires no great amount of time or labor; the cultivation is well over, as a rule, before the hay and grain harvest. No other crop will thrive and grow so rapidly in hot, dry weather, and the harvesting comes at a season when the other farm work is not pressing. A stave silo costs comparatively little, and if on a good foundation and anchored to a building to prevent blowing over, will serve the purpose admirably for a good many years; while a cement silo, though costing more at first, is good for a lifetime. The crop once in the silo, is easy of access in all kinds of weather, and if the corn be well matured before cutting the silage will be sweet, palatable and nutritious, giving good results either in the case of dairy cows or fattening cattle, when fed in combination with roughage in the form of hay or straw, and with concentrated foods in the finishing period.

In the average summer season there comes a time, when, owing to drouth, pastures fail, when cattle lose flesh and shrink in their milk supply—a time when supplemental food is needed, in order to avoid loss in the income from a herd, and there is certainly no way in which this emergency can be so well met as by having a small silo for summer use in addition to the usual supply for winter feeding. With this in view it is well to build two silos of moderate size rather than one

large one, as the larger surface exposed in warm weather and when less of the silage is being used, results in loss from exposure to atmosphere. With a summer silo, the milk flow may be kept steady, and the flesh of feeding cattle maintained through a period of drouth—an important consideration, as weight lost must be made up before gain can be realized.

To those who have not used ensilage, it is safe to advise the growing of corn and making provision for a silo or two during the coming summer. Study the question of the most suitable variety of corn for your section, test your seed before planting, read or enquire regarding the best methods of cultivation, and join the procession of successful cattle feeders, as this is the sheet anchor of successful farming in most sections of Eastern Canada at least.

The King of Italy's Co-operative Project.

Great minds continue to address themselves to similar problems. Canadian orchardists are busy working out the details of the successful co-operative growth, packing and sale of fruit. Mr. A. L. McCredie is talking to the farmers of this country through the "Farmer's Advocate" on the subject of co-operation, and his contribution in this issue is likely to set people thinking. And now Prof. G. Montemartini, of Rome, Italy, writes us that our friend, Victor Emmanuel III., King of Italy, desires publicity given to his proposal for the establishment of an International Chamber of Agriculture, which is to be largely co-operative in its plan and purpose. The preliminary congress is to be held in Rome in May next. The King believes that much benefit would be derived from "an international institution absolutely non-political in its aims, which would have before it the conditions of agriculture" in every country, and which would publish periodical announcements of "the quantity and quality of the crops in hand," and would thereby facilitate production of needed crops, and help to the attainment of better prices. "This institution, acting in unison with the various national associations already constituted for similar purposes, would also furnish reliable information as to the demand and supply of agricultural labor" in different quarters of the globe; "would promote those agreements necessary for collective reference against diseases of plants and domestic animals," and, finally, "would exercise a timely influence on the development of societies for rural co-operation, for agricultural insurance, and for agrarian credit."

The precise form of this chamber and its place of permanency necessarily remain to be developed, but the design comprises two chambers, one in which the agricultural interests of each country shall be represented in proportion to their magnitude, by representatives of agricultural organizations; the other in which every nation shall have equal representation, the appointments to be made by the respective Governments. This, as it will be seen, in a measure reproduces our own House of Commons and Senate, of which someone has observed that the Senate served the purpose of saucer to the House's cup—overhot resolutions being poured therein to cool. In providing for the future "ways and means," or the "sinews of war," it is proposed that expenditures might be met by, 1st, appropriations from the nations, in proportion to representation; 2nd, charges for bulletin announcements and display of samples; and 3rd, in the event of exchanges being adopted, by a commission on sales.

Boiled down, it means International, National and Local organization. It looks like a big project, but Victor Emmanuel combines the shrewdness of the Italian with the optimism and energy of comparative youth, and he and many others with him in this movement believe that the dis-united individual element of the agricultural masses scattered throughout the world can thus co-operate to their great advantage, especially in their defence against commercial and transportation trusts.

Governmental Handling of Public Utilities.

In the House of Commons a short time ago the question of "Rural Delivery of Mail" was debated. The Postmaster-General expressed himself as opposed to the scheme in Canada, on the score of expense, quoted the U. S. experiment as a costly one, and incidentally expressed the hope that the telephone system would be extended to farmers, and possibly come under Government control. At his request a special committee was appointed to investigate and report upon the subject. Two M. P.'s (Lambton and West Kent) pointed out that the farmers of Canada are asking for rural free delivery of mail. It is well to study the cost of such mail delivery in the U. S., and for that purpose we cite from a reliable U. S. contemporary as follows:

"Between June 30, 1904, the end of the fiscal year, and March 1, 1905, the post office department established 5,432 rural free mail delivery routes. This made the total number of such routes 29,998. The State having the most rural routes is Illinois, which had on March 1, 2,450, an increase since June 30, 1904, of 326. Ohio had 2,161, and Iowa 2,048.

"Illinois' lead as a rural-mail-delivery State is partly due to the zeal and activity shown by her senators and representatives in furthering the interests of their constituents, but it is mainly owing to conditions existing in the agricultural sections. It is essential to the success of rural delivery that the districts in which it is tried shall be thickly settled. It would fail in Arizona or New Mexico, because a carrier might have to ride all day to deliver mail at one or two ranches. The rural districts of Illinois, on the other hand, have become so thickly populated that a carrier may deliver mail daily to one or two hundred families. The post office department requires roads on the rural routes to be kept in good condition. The highways of Illinois, while generally far from perfect, are, as a whole, better than those of many other States.

"The rural delivery system already costs the Government \$7,000,000 annually more than it earns; and every time a route is added the chronic excess of postal expenditures over receipts is increased \$25 a year. Nevertheless, public opinion sustains the post office department in steadily extending rural delivery. It does not yet pay the Government financially, but it is earning large dividends as a social investment. It has done much to ameliorate the loneliness of farm life. Enabling the farmer's family to get letters, newspapers and magazines as regularly and almost as quickly as persons living in cities, it tends powerfully to stimulate and broaden the national intelligence."

From our own experience, we would suggest that the Post Office Department improve on their present methods, preparatory to looking for fresh avenues of activity.

While the theory of Governmental control of public utilities is a popular one, it is well to reflect whether in the practical working of such a theory, the scheme is to be preferred to that in operation now, efficiency being in the former case too frequently satisfied in the hope of cheaper service. To make a comparison we cite the C.

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P. R. Telegraphs and the British Postal Telegraphs; the latter costs about half the figure of the former for a telegram of ten words, but the Government telegraph system makes five mistakes to the Company's one; and in business one mistake may lose more than the cost of one's telegrams for a lifetime. Then, again, in the civil service the inertia is appalling, taking the service as a whole, either in Britain or Canada. A good man's efforts are either so hampered that his efficiency is destroyed, or he quits the fight against departmental lethargy in disgust. There is also another thing to consider, and it is that the political appointee quite frequently gets to think that he is not paid enough when he takes his present and past services to the Government into consideration, and if he does not get the figure he values his services at he balks, and the public pays the piper. To our mind, Governmental control of public utilities is not likely to be satisfactory until appointments to the civil service are made by impartial examinations, in place of the system pretty commonly used, namely, political preferment, which sometimes lands a good man into the country's service, but more often an indifferent public servant.

Points Right.

The compass you sent I received all right. I am well pleased with it; also the "Farmer's Advocate" is a leader in its class. Hoping you may be long spared to publish so valuable a paper.
E. THORNTON,
Lambton Co.

How to be Up-to-date.

I am still taking your paper, and am fully convinced it is the best agricultural paper in Canada, and do not believe it is surpassed, perhaps, as a farmer's periodical, in the world. I am fully convinced that no up-to-date farmer can afford to get along without its presence in the home. I can readily congratulate you on its weekly issue.
Ontario Co. C. J. STEVENSON.

Instances of Successful Co-operation: IV.

(Continued.)

I have already mentioned the Canadian cheese industry as one proving the advantages of farmers co-operating, and an editorial note in the previous article well stated that, though many of our cheese factories had more recently been taken over by private enterprise, their success had been achieved as co-operative concerns. In view of what has been maintained in these articles as to the right principles and methods of co-operation, it may be well to point out that in the cheese industry there is not the same need for a specific guarantee of milk supply by members; as milk, unlike live animals or other farm products, cannot easily be sold except to the nearest factory in most cases. The capital required was obtained from members instead of by loans. Without the guarantee as to care of animals and milk, which is universal in the creamery associations of Denmark, our factories, as we all know, have had the greatest difficulty in securing milk of the best quality, and, in consequence, our national cheese product has not been as uniformly excellent as it should be. The same is very true of our creamery butter, and for the same reasons. The Dairymen's Associations, however, are overcoming these difficulties in another way, and it is noteworthy that their tendency is distinctly towards co-operation in principle, and away from the spirit of Government compulsion.

Readers of the "Farmer's Advocate" are sufficiently familiar with the history, methods and principles of the Patrons of Industry, so that I need only mention the binder twine factory and salt supply enterprises begun under their auspices, and continued with entire success, breaking and keeping down piratical combines in both those directions. As in the cheese industry, conditions peculiar to these enterprises made it easy for them to succeed in spite of private competition, and in spite of the fact that they were not owned, organized or managed according to co-operative principles and methods. They are simply limited liability concerns, and the fact that a large number of their shares is held by farmers does not make the distinction any less real.

That they have gained practically the same results as true co-operative organization would have secured is due chiefly to the fact that the owners and managers were actuated at heart by the spirit and principles of co-operation. But they might, for their own benefit, have done otherwise, and the farmer consumers could not have done anything to control their policy or actions. That these owners and managers have thus operated according to the spirit of co-operation only proves that farmers can work together, "each for all, and all for each."

So much, then, for co-operative industries. But what the farmers produce, separately or jointly, must be sold; and what is sold must be carried (in our case most of it a long distance) to market. The amount of farm products sold by Canadian farmers is enormous, and it might with great profit be done co-operatively.

It has been done co-operatively abroad. Denmark has its associations for sale and transportation of butter, bacon, eggs, horses, etc. Germany has nearly 2,500 associations for the same purposes. France and Belgium are similarly provided. By thus carrying their products to market, insuring them in transit themselves, the Danish associations actually save one-quarter of the price received on the British market! The western farmers of the United States are rapidly increasing their already numerous associations for co-operative sale of products and purchase of supplies. Iowa alone has over 200 of these local associations, owning their own elevators, dealing in lumber, coal, etc., besides handling their grain and live stock in combination. The Rockwood association alone handles over \$700,000 worth of goods annually.

At home, as my readers will have seen in the "Farmer's Advocate," of March 16th and 23rd, Ilderton has its apple association, with a successful record in packing and selling apples, and Forest has its fruit-growers' and forwarding association, with pronounced success in the same work. Read these accounts again. They are significant. These associations are new, but THEY HAVE GOT RESULTS.

In all these instances of co-operative packing, shipping and sale, the essentials to be noticed are the adoption of grading and uniform trade marks. In the case of the Danish and other European organizations the control of the freight rate situation is also obtained as one of the first results. We will have this result also when our organizations are powerful enough.

The "Farmer's Advocate" has forestalled me again in the matter of co-operative or "mutual" insurance. Every farmer knows of such native organizations, and of their value in the community. It may hardly be in place just here, but it may be said that co-operative insurance is the only kind the farmers should adopt—but it should be truly a co-operative concern in every instance. And the scope of such insurance could be widened. In Europe the farmers have mutual insurances against sickness, loss of labor supply, etc. The latter case being a suggestive one for the Canadian farmer.

Careful reading so far will show very well the principles and methods of the most successful farm organizations in the world, and will, I think, surprise many with the facts of the extent to which organization of that sort has been carried out, as well as of the wonderful results thus secured to the organizing farmers. I shall not attempt to outline cases, at home or abroad, where co-operation and agricultural pro-

perity are together absent, but I shall give an instance or two of importance, to show that the intent to co-operate, unless put into shape according to the principles and methods emphasized herein, may result in total failure.

FAILURE OF ATTEMPTED CO-OPERATION.

With the exception of one co-operative bacon factory, established in a Danish district where there were not hogs enough to keep it going, there is no discoverable instance in Europe where co-operation has failed. For failures we must, unfortunately, seek at home. The (so-called) Co-operative Bacon Factory at Palmerston will at once occur to everyone. This factory was organized, as was the binder twine factory at Brantford, as a limited liability company, with shares held among the farmers to a considerable extent. The Brantford Company succeeded, while the Palmerston Company failed. The reason is easily seen.

When the farmers' company started business, the private packers—who, be sure, understood long ago the dangers to them of co-operation—went to the farmers with increased prices for hogs. They went to the many farmers who didn't own shares in the factory, and also to the few who did. They offered such prices that the new factory lost one dollar on every hog they handled, and the new factory soon quit. It was very simple. The farmer who had \$10 in bacon-factory shares got his cash—\$10—in increased profits on one batch of hogs sold in Toronto, and could afford just then to see the shares worthless. But the fact is, he didn't expect the factory to fail because HE sold his hogs to the factory's competitors. He thought the other shareholders and the farmers generally would hold the factory up. And thus the factory failed. Had that factory been the property of a co-operative association, every member of which had given a guarantee to sell it every hog raised, and a guarantee to pay his share of the liabilities if it failed, you may be sure it would be the biggest and most successful bacon-curing factory in Canada to-day. More, the complaint of one farmer, that he doesn't get fair prices for selects, and the content of another on getting too good a price for fat, corned hogs, would be settled for good. The ten per cent. commission every buyer of hogs takes out of the farmer would go to the farmer's bank account, along with enhanced profits in other respects. As it is, we are deploring "the failure of co-operative bacon-curing," and saying it cannot be done. All that is nonsense. It can be done if the farmers do it themselves.

Another instance of so-called co-operative farmers' industry is the "Farmers' Co-operative Harvesting Machine Co.," at Whitby. It is, perhaps, too soon yet to decide whether it is a success or a failure. That is in dispute at present among the directors, one of whom is a prominent Toronto financier. But it certainly is not co-operative, and so far as can be learned most of the shares are not held by farmers. What concerns us—the farmers—is that the farmers should either buy or manufacture co-operatively not only their binders, but all their implements. Truly organized according to the methods and principles outlined in these articles, they need only make their own terms with the firms who are already in the business. The following articles will show how the Canadian farmer can and should accomplish this and other objects by co-operative organization.
AUSTIN L. McCREDIE.

What Price for a Herd-header?

The above question, often asked himself by the beginner in pure-breeds, was suggested to us a short time ago by a pure-bred cattle man, who drew attention to another breeder's idea of a bull to head his herd, and the price such should cost. The bull in question, an animal of one of the beef breeds, cost somewhere between \$75 and \$125, and was at the head of a herd numbering some twenty or more breeding females. The said bull was neither a good representative of the breed (judged either for type or masculinity), nor of the beef type, and had he been altered, would have made, if properly fed, only a fair steer. The breeding females in the herd could safely be valued on the average at \$100. What, then, should the breeder expect to pay for a fit bull to head his herd, two things being steadily in mind, viz., that the bull is half the herd, and that the greatest and quickest improvement in the quality of a herd can be made by the use of a first-class male? Given a herd of twenty mature breeding females, at an average of \$100 apiece, no person can reasonably expect to get a bull with the necessary character, either of sex or breed, to render him the service such a bull should, for a sum much below \$300, and should be prepared to go double that price for a superior animal rather than take one of mediocre breeding and medium individuality at half the price. Any bull sexually sound will get calves if mated to healthy mature females, but there is in the breeder's art more than mere bringing together of animals to multiply the species. Even if the breeder looks at the matter solely from the standpoint of the money to be made from breeding pure-breeds, and does not concern himself over the improvement of the breed, even that man will find it pay him to use the very best bull he can afford; and he can hardly afford to use an inferior bull because it costs only a hundred or two. Far too many pure breeding registered cattle to-day are

using inferior bulls, and are thus hurting themselves and the pure-bred cattle industry, by setting a bad example to beginners at the business, and also to the farmer seeking to improve his grade stock; and by flooding the pure-bred market with a lot of inferior stock, they lower the prices all round.

HORSES.

The Cosmopolitan Hackney.

"One great merit possessed by the Hackney horse," says a writer in the London Live-stock Journal, "is that he appears able to flourish under almost any climate, and upon almost any soil; and not only to flourish, but to be capable of transmitting his leading characteristics to mares of every breed. This faculty was rendered obvious by what was to be seen at the recent London Show, where first-rate specimens of the breed were forthcoming from all parts and districts of the United Kingdom; and if a proof of the toughness of the Hackney were required, it is seen in the instance of the champion stallion, which left this country for America at a very early age, and, having worked his way to the top there, returned home to carry off the highest honors at the Society's show.

"We all learn, too, at least all of us do who do not permit our better judgment to be blinded by unreasonable prejudice against the horse, what the Hackney has accomplished on the Continent, and also the great value that is placed upon his services by some great breeders of South America, whilst his recent triumph in the United States, after many years of vicissitudes, must have convinced every unbiased mind that the Hackney belongs to a variety which cannot be put down.

"The prepotency of the Hackney stallion is another point in his favor, for even his greatest enemies admit this fact. Indeed, one of the favorite charges that I have heard brought against him is that, once you get his blood into a strain, you can never get it out again. This being the case, the question may be asked, 'How can horse-breeders do better by their studs than by raising the best type of Hackney?' The breed flourishes wherever it is given a fair chance, and it breeds true; than this, can there be a better recommendation for any horse? No doubt the cause of the Hackney has been injured, and he has gained enemies in consequence of the injudicious attempts which have been made to have him accepted as a riding horse. In the old pre-railway days the Hackney was certainly used for riding purposes, but that is ancient history, and much water has run beneath the bridges since the bygone race of British yeomen used to ride to market on their Hackneys, with their wives behind them on pillows. The exigencies of modern tastes require something different from the ordinary Hackney; and even if it is conceded, for the sake of argument, that there are two types of the breed, it is unfortunate for the horse that so many of the harness variety are to be seen in the classes made for Hackneys in saddle.

"The greatest of all the Hackney characteristics—action—is all in the direction of work in leather, for there is no horse in the world that can move like he does, and hence the possibilities which lie before the man who forms a stud with the object of breeding for the market. Of one thing he can be certain, provided that he selects his stock with judgment, and this is that he will get fewer misfits than the raiser of most breeds of horses. In spite, too, of the increasing popularity of the motor-car, there is a strong probability of this objectionable invention sharing the fate of the bicycle before long, and thereby assuming a definite position more as a vehicle of commerce than that of a rich man's toy. When this day comes, the demand for high-class movers, great as it is at present, will be increased, and then Hackney breeders who have declined to lose faith in their horses will reap their due reward.

"The Hackney is the horse of all others for the amateur horse-breeder to exercise his talents upon, for this variety flourishes in every district, is long-lived, good constitutioned, kindly in disposition, a reliable breeder if properly mated, and, above all, invariably salable if a good one. Can any breed of horse claim more than this?"

Saved the Colt.

Enclosed please find the sum of \$1.50 for my renewal. We find every department of the "Farmer's Advocate and Home Magazine" extremely interesting and helpful. I recall one instance in many of its usefulness during this last year, when an article by "Whip" enabled us to treat successfully a sick colt. We wish the "Farmer's Advocate" continued success.
Oxford Co., Ont. G. A. HOGG.

The Live-stock World is firmly of the opinion that not in the time of men now living will horses ever sell so low as they did during the great depression some seven or eight years ago.

The "Own Brother" Question.

One of the things which puzzle those who make a study of breeding is the difference in the breeding-on capacity shown by brothers. Why are horse should be a really great sire, and an own brother with equal opportunities should never get beyond the ordinary, is something for which no rule seems to afford a reasonable solution. Yet there are many instances in which just that state of affairs is found. Probably no greater difference is to be found in two sires, both of which attained greatness in a degree, than those two sons of George Wilkes and Alma Mater, Alcyone and Alcantara. Alcyone died when he was ten years old, while Alcantara lived to be nearly three times that age. Alcantara was foaled the year previous to Alcyone's foaling, was given a faster record, and was, if anything, placed ahead of his brother by the breeding public. Alcantara certainly had as good opportunities as Alcyone was accorded while the latter horse was alive, and after the death of Alcyone the older brother had vastly better opportunities than Alcyone ever had. The 2.10 list, however, shows that as a progenitor of extreme speed Alcyone far outranks his older and longer-lived brother. No less than thirty-seven trotters and pacers with records of 2.10 or better stand to the credit of Alcyone and his descendants in the direct male line, while sixteen represent Alcantara in the same way. Further, the sons and daughters of Alcyone have produced 483 standard performers, as against 345 produced by the sons and daughters of Alcantara, in spite of the latter horse's long life and extended opportunities. Just why one of these pair of great brothers should have been so much greater than the other, is difficult to say.—[Horse World.



C. D. McGilvray, V. S., M. D. V., Binscarth, Man.

A Good Appointment.

In the Hansard report of March 10, the Minister of Agriculture, in answer to a question by W. J. Roche, M. P., stated that the Veterinary Branch has practically taken charge of all the work in regard to "health of animals" in Manitoba. The newly-appointed veterinarian in charge, the chief veterinary inspector for Manitoba, is C. D. McGilvray, of Binscarth, Man., well known to readers of the "Farmer's Advocate" by his articles dealing with horses. Dr. McGilvray is a native of Scotland, a country from which come many good horsemen and veterinarians, and graduated from the Ontario Veterinary College, Toronto, some years ago, winning the gold medal and otherwise distinguishing himself. Later he spent a winter at the McKillop College, and took the degree of Doctor of Veterinary Medicine (M. D. V.). He has practiced successfully for years in his own locality, and has served as judge of horses, and as a lecturer for the Territorial Department of Agriculture, besides lecturing and demonstrating at the Live-stock Conventions in Winnipeg. The salary attached is not a large one, being \$1,500 a year.

Fitting Stallions for the Season.

A subscriber asks information on the proper food for a draft stallion while fitting him for the season, what stock food we would recommend, if any, and whether during the breeding season a horse should be washed out every day. The question was referred to an experienced stallion man, who stated his recipe for conditioning stallions to be oats and bran three times a day, with a small evening feed of boiled oats or barley; good hay, consisting, preferably, of one-third or one-half clover; five or six miles exercise a day, and an intelligent groom. If the horse seems to be out of condition, dissolve in the mash twice a

week a handful of Glauber's salts. Sulphur should be used judiciously, if at all, as it opens the pores of the skin. He stated that he had been feeding six draft stallions for a week on 300 pounds bran and 300 pounds oats, with hay. During the season he advises washing the horse out occasionally, say about once a week, with warm water and castile soap. He had no faith in stock foods or condiments, which, though they might add bloom, affected injuriously the procreative faculty. A teacupful of flaxseed, boiled, could often be fed to advantage during the breeding season. The grain ration he considered better fed with a couple handfuls of chaffed hay.

Breeding Trotting Horses.

The first principle of breeding is to use as well-bred and shapely mares as possible, and mate these mares with the best bred and most successful sires within reach. It will not always be possible to produce sound and speedy colts, but the percentage of soundness and speed will be greater than where scrub sires and scrub mares are used. It does not pay to use inferior animals for breeding purposes, and no breeder can hope to succeed who uses this class of animals. There is always a demand for trotting-bred horses, and right now there is a buyer for every sound, useful light-harness horse, and I do not suppose that there is a reader who does not know that buyers are scouring every town-ship, willing and anxious to buy every horse of marketable age.

The trouble with many breeders is that they attempt to breed horses on too large a scale, and the expense of development becomes burdensome. No farmer or small breeder should keep over a half dozen mares, and these mares should be made to earn their keep, at least, by being used for the ordinary work of the farm. I was at one of the largest breeding farms in Indiana a few days ago, and saw some thirty-five brood mares in idleness which could just as well have been doing the work of a score or more of work horses used in the farm work. Because a mare has a good pedigree is no reason why she should be kept in idleness, and the sooner the farmers learn this fact, the better it will be.—[J. M. McCartney, before the Ohio Horse-breeders' Association.

Over-fat Stallions.

An exchange, commenting upon the tendency of many stock breeders to overload their animals with fat, at the expense of the development of muscular force, says:

"It should become apparent at a glance that the modern methods of feeding and fitting many mares and stallions may justly be regarded as highly detrimental. Work, the product of constitutional vigor, is the ultimate object in the production of the draft horse. Through selection, continued breeding in a right line, in a suitable environment furnishing adequate nutrition, size and weight have been developed and made transmissible characteristics or tendencies. Excess of fat in such animals is a positive disadvantage, for which not a sensible argument can be advanced. Feeding for the intentional production of fat is, therefore to be denounced. The art of the feeder should be devoted to the development of bone and muscle, that added ability for heavy work, not to the rounding out of the body with fat, which means, inevitably, fatty degeneration of the vital organs. The forcing process by which many draft stallions are made to attain great weights, is injuring the breeding business seriously. It is the reason for so many stallions proving wholly or partially impotent, for so many foals coming into the world crooked and weak, for so many grade colts from suitable mares failing to attain draft horse proportions. Deprive many a draft stallion of his surplus fat and he proves to be deficient in the width and depth of body, and development of muscle and bone that are the true attributes of the ideal drafter. Fat does not impart strength for labor. Its presence indicates weakness rather than strength. The fat stallion is a burden unto himself, and a disappointment to his buyer. Besides this he proves a failure on the stand, and his colts, few as they usually are, fail to develop draft horse size and character.

"The crying need of our draft-horse industry is for sires that are great in development of bone and muscle, and possessed of constitutional vigor—the product of natural feeding and management. In their place we are often offered stallions that have been fed on sloppy food, doped with drugs, made to seem powerful and ponderous, but rendered actually weak by such methods. Set one of these pampered beasts to work and he speedily loses three or four hundred pounds of fat, and thus depleted he is not a draft horse, and such stallions cannot beget real draft horses. There are others, and they are doing good service, but are scarce. When found they are prepotent and worth the high figures now being coaxed out of farm companies for fattened draft stallions such as we have described. Taken from the plow-harness, the draft stallion begets a full complement of lusty, robust colts from his mares. He is in a natural condition, and it is natural for

him to procreate his kind. On the contrary, the pampered, plump, pretty, polished stallion is merely posing as something he is not. Fat makes him that, and often renders him impotent, or, should he beget a foal, it is likely to suffer by reason of the unnatural and unhealthy condition of its sire.

"These are plain words, but they are true and necessary. It is time to wake up to their truth and to seek the improvement of our draft horses by selection of true draft sires and mares, and not by the mating of pampered animals that, deprived of their load of fat, prove to be lacking in the requisite frame development of the true draft horse."

STOCK.

Senate vs. Embargo.

On motion of Hon. James McMullen, the Canadian Senate, on April 6th, adopted the following resolutions: "Resolved, that the Senate of Canada desire to call the attention of the Imperial Government to the fact that Canadian herds are now, and have been for many years past, free from those particular diseases against which the embargo has been imposed. That this has been repeatedly admitted by the Imperial authorities themselves. That, under the circumstances, the continued prohibition of the importation of Canadian cattle on the pretext that there is danger of the spread of those particular diseases among the British herds, is an unjust imputation and should be repealed. That the Senate of Canada respectfully suggest that the Imperial act based thereon should be repealed; and that a copy of this resolution be transmitted to the Honorable the President of the Board of Agriculture and to the Honorable the Premier of England."

Principal Dewar on Eradicating Tuberculosis.

Principal Dewar, of the Royal (Dick) Veterinary College, Edinburgh, in a recent address before the Edinburgh Agricultural Society, declared tuberculosis can be all but extinguished in a pedigreed herd without cost to the owner which could be characterized as ruinous. The fact that the work has been done, he stated, is sufficient to render inexcusable breeders who do not attempt to do it. The disease can be all but stamped out by a sensible use of tuberculin, separation of the reacting from the non-reacting cows, and the careful observance of sound principles in the management of calves. This is the Bang system, or that carried out at the great breeding establishment of Hon. W. C. Edwards, at Rockland, Ont., with which readers of the "Farmer's Advocate" are familiar. Commenting on Principal Dewar's address, the Scottish Farmer says: "Great Britain will not always be able to bluff the stock breeders of North and South America on this point, and, even if there were no foreign trade, it is a suicidal business to go on breeding stock under the conditions favorable to the spread of the disease, when means for its control and restriction lie ready to the breeder's hands. Principal Dewar's words of counsel, advice and warning should be laid to heart by the stock breeders of this country."

Against Dehorning.

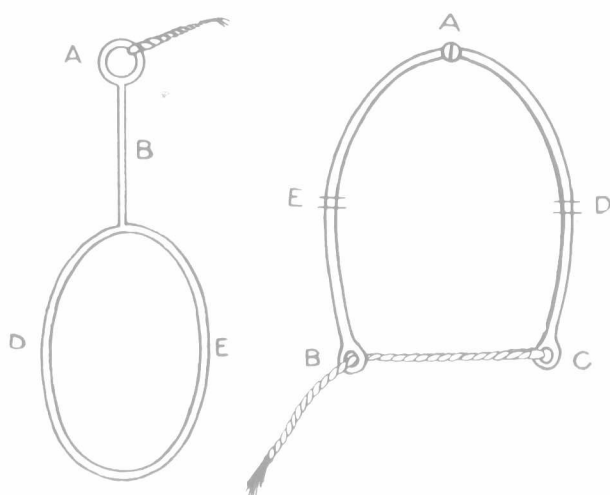
To the Editor "Farmer's Advocate": In your issue of March 23rd I noticed an article in favor of dehorning, and have read similar articles in your paper before. Now, in my opinion, instead of the Government enacting a law, as suggested by the writer, requiring that all cattle intended for meat be dehorned, it should enact a law to put every man in jail for one year at least who dehornes or allows his cattle to be dehorned with a dehorning instrument. If a man desires his cattle to be hornless, let him raise the breeds that have no horns. We are fortunate to have breeds of cattle with and without horns, so everyone may be suited, and there is no excuse for any man breeding a class of cattle with horns and then cruelly cutting them off. If a man desires one or some of his animals to be hornless, let him touch the little nubbins with a stick of potash when the calf is a few days old, and horns will not grow. I have heard dairymen say they would give ten dollars per horn to have them back of their cows, when they saw the poor animals standing in their stalls with the blood pouring down their cheeks. As regards shipping, or running in yards loose, whether the animals are dehorned or not there is always some master of the others, and a dehorned animal can make it mighty uncomfortable for the others with those nubs or stumps that are left. The average man that follows dehorning, generally has a great eye in his head. On one side he leaves two or three inches of the animal's head off on the other side. Dehorning is not necessary nor effective, even in the case of a bull. If a bull becomes cross, he

is generally made so by his manager or someone teasing him, and if his horns are removed it is no cure, he will still be cross, and if he gets a man down in a corner he can push just as hard and as surely finish him as he could with horns. Wentworth Co., Ont. ALEX. YOUNG.

Two Kinds of Branks.

A short time ago we were asked for a description of a Scotch "brank," which is a halter, consisting partly of iron, for handling unruly animals. The accompanying cuts illustrate two kinds of branks.

No. 1 is made of round iron, bent and welded by a blacksmith, as shown in cut. The ring fits over the muzzle, taking the place of the corresponding piece of rope or strap in the ordinary



halter. At D and E a strap is attached, passing over the head behind the ears. As the shank B projects above the muzzle, a slight downward pull on the rope attached to the ring A, gives a leverage on the lower jaw.

No. 2 is made of flat iron; hinged at A. As in the other brank, the headstrap is attached to D and E. The leading rope is attached at C and passes through B. Pulling on the rope causes compression on the branches of the lower jaw.

Another Sheep Rack.

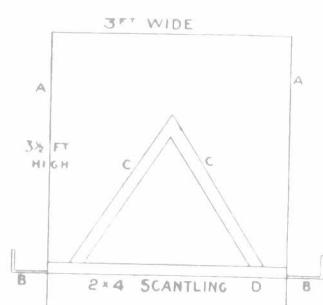
Bring interested in the helps given in the columns of your valuable farm paper, I enclose you a drawing of a sheep-feeding rack, which we have been using for about 20 years. The one that we have is 16 feet long, and as it is placed in the center of pen the sheep can get around it, and it will accommodate from 15 to 18 sheep to feed around it. From the hayloft overhead, at one end of rack we have a chute which rests one end on the rack and the other attached to side of shed. This is arranged so that it will contain enough hay to fill the rack, and there is no carrying hay over



Side View of Sheep Rack.

the backs of sheep. The pen can be divided into two compartments, by the use of doors or slides at each end of rack. Our shed is 24 feet wide, which leaves about 4 feet at each end of rack. I enjoy your valuable farm paper, and in renewing my subscription I send this. ROBERT J. LOGAN. Wentworth Co., Ont.

The uprights A are 2x4 scantling, which may or



End View of Sheep Rack.

may not extend below the troughs B, which are used for feeding roots and grain in. The center pieces C extend to within one foot of the top of rack. There is one of these at each end, and one in the center, to which are attached inch boards, which cause the hay or whatever is fed to slide towards the slabs which compose the face of rack; the ends of the rack are boarded in. There is an inch board about six inches

wide extending from end to end of rack; there is also a board six inches wide nailed to scantling D. This D is nailed to the inside of the frame, and the face of rack is three or four inch strips, about three or four inches apart, as these are straight and close enough together to prevent the sheep from getting their heads through among the feed, and also keeps the seeds and dirt from getting among the wool. The trough marked B is attached after the slats are put on, and besides doing for feeding roots in, catches some of the finer clover heads. Instead of having the scantling extending below the rack or feeding troughs, the rack could be placed on blocks at whatever height desired. The advantage of this rack is that it answers the purpose of a hay as well as a root or grain rack. The hay or other fodder is not above the sheep, as in the case of a rack narrower at the bottom than at the top, and then with the chute at the end the hay is handy to place in rack, even when sheep are in the house.

Encourage the Linen and Wool Industries.

To the Editor "Farmer's Advocate":

Sir,—I have before me copies of the Imports and Exports (Customs) for three years, viz., 1901, 1902, and 1903, and I find that the woollen manufacturers of this country import wool from foreign countries to the following extent:

In A. D. 1901, page 193	8,574,605 lbs.
In A. D. 1902, page 198	10,360,738 lbs.
In A. D. 1903, page 271	7,944,702 lbs.

Total 26,880,045 lbs.

Or an average of 8,960,015 lbs. per annum, and that free of duty.

They also imported rags, principally from England, France and Germany, for the same years:

In A. D. 1901, page 223	390,028 cwt.
In A. D. 1902, page 236	367,373 cwt.
In A. D. 1903, page 258	370,165 cwt.

Total 1,127,566 cwt.

Or equivalent to 126,287,392 lbs. in three years, an average of over 42,092,000 lbs. per annum, also free of duty.

And of shoddy goods, imported likely by the wholesale dealers:

In A. D. 1901, page 181	43,677 yards.
In A. D. 1902, page 183	116,385 yards.
In A. D. 1903, page 259	202,908 yards.

Total 362,970 yards.

An average of 121,300 yards per annum, and that subject to a duty of 20 per cent. We do not export any shoddy goods, so the inference might be drawn that all the rags imported, and all the rags picked up in this country, are made into clothing for the Canadian people, besides the quantity of shoddy goods imported, added thereto all sold and worn by the people of this Dominion. The Government of this country has no control over the quantity of rags picked up from house to house, consequently I cannot account for the amount collected, but from the imports there is an average of over eight pounds of rags per head for the population of the Dominion, besides our own rags and the quantity of shoddy goods imported, all worn and used up by the Canadian consumer.

Just imagine our Canadian manufacturers importing rags from those foreign countries to compete with our wool, and our Dominion Minister of Agriculture gives me to understand (this is a copy of his reply), March 1st, 1905: "In regard to the matter of prohibiting the importation of rags for shoddy, there is no means at the present time to deal with it in the way you suggest. I fear if we were to try to prevent shoddy from being made by woollen manufacturers, it would be such a blow to the industry that it would really hurt our consumption of genuine wool in the country."

(Sgd.) SIDNEY FISHER.

We prohibit the importation of oleomargarine, butterine, or other substitute for butter (to protect the farm industry); customs tariff, 1897, schedule C., section 639. Would it not be advisable to prohibit the manufacture of rags also, and prohibit their importation, or any article of commerce that rags form a component part?

The farmers of this country are quite willing to compete against any crude fiber, such as cotton, linen, etc., but those rags, purchased as they are at a fraction of one cent per pound, should not be permitted as a commercial necessity.

They are a menace to the health of an aspiring nation, spreading contagious diseases, etc.; besides, shoddy goods made from them are a fraud on the purchasing public, because the makers and sellers are not compelled to label the goods shoddy. Prohibit the dealing in rags, directly or indirectly, then the farmers of this country can supply the people with pure goods. Fields of flax and flocks of sheep will be worth more to the commonwealth than an army of rag pickers, indirectly employed in this country and foreign countries by our woollen manufacturers at the present time. Who are the people of this country anyway, the farmers or the manufacturers, whom should the Government encourage? I have attended institute meetings for the past fourteen years, and I never heard one word, either written or oral, from our manufacturers as to the kind

of wool they wanted, the condition they required it in, or any information whatever on the subject. What sort of wool is this they have imported, to the extent of over 8,000,000 pounds per annum? Could not our farmers grow it if educated as to the quality? I would like an answer. If the spirit of this letter is acted upon by our Dominion Government, the water powers of this country will be harnessed by linen mills, additional to the consumption of pure wool, then the manufacturers can say grown in Canada and made in Canada, an improvement on their present motto (made in Canada). Pure food to each and clothing from pure fiber only should be the motto for every person inhabiting this Dominion.

Russell Co., Ont.

Re the Scrub Bull.

We have heard and read a great deal lately about the scrub bull. Farmers and feeders especially are by degrees wakening up to the importance of keeping cattle bred only from pure-bred bulls of good type. But is it not surprising how many scrub bulls are yet kept in this fair country of ours? We can count several just in our own community. Just think of a farmer in this age keeping a \$15 or \$20 bull year after year for his neighbors to breed stock from. What a hindrance to progress, and how a man will, by little enterprise, keep a whole neighborhood back. How are we going to remedy this? Some say make those who keep a bull not registered pay a license fee or fine of \$15 or \$20 a year; others suggest something else. But, do you know, I think if farmers were better educated on these matters, if they would read more good agricultural papers and become more enlightened, the results would be quite different. Only a very few attend the Farmers' Institute meetings, and only a small percentage take a real good farm paper, and consequently many are not posted in these things. In conversation with a big farmer the other day, I said, "Do you take the 'Farmer's Advocate'?" "Oh, no," he said, "but I take a farm journal printed in the United States that costs me only ten cents a year." Just think of it! And this man has boys who would relish a good farm paper. I honestly believe if our Government would place the "Farmer's Advocate" in every home of those who will not take it, it would give this country a lift that would be felt for generations to come. We need something to come into our homes every week, saying, "Wake up! You must try and do better!" And the "Farmer's Advocate" will do that, bringing a reliable and practical budget of information, at a cost of less than three cents a week.

Bruce Co., Ont.

Rape as a Food for Pigs.

In this connection it is interesting to observe some important conclusions which have been arrived at as a result of experiments carried out at the Wisconsin Station on the subject. The deductions drawn were:

That with pigs from four to ten months old, representing the various breeds of swine, an acre of rape, when properly grown, has a feeding value, when combined with a ration of corn and shorts, equivalent to 2,436 pounds of a mixture of these grain feeds.

That rape is a better green food for growing pigs than good clover pasture, the pigs fed upon the rape having made, on the average, 100 pounds of gain on 33.5 pounds less grain than was required by the pigs fed upon clover pasture.

That pigs are more thrifty, have better appetites, and make correspondingly greater gains when supplied with a rape pasture in conjunction with their grain feed, than when fed on grain alone.

That rape is the most satisfactory and cheapest green feed for pigs that we have fed.

That rape should be sown in drills 30 inches apart, to facilitate the stirring of the ground and cultivation after each successive growth has been eaten off.

The pigs should not be turned upon a rape pasture until the plants are at least 12 to 14 inches high, and that they should be prevented from rooting while in the rape field.

That rape is not a satisfactory feed when fed alone, when it is desired to have any live weight gain made in pigs, though it has been found that they will just about maintain themselves without loss of weight on this feed alone.

"Farmer's Advocate" in Wisconsin.

Enclosed please find \$1.50, for which please extend my subscription to December 31st, 1905. I enjoy reading your paper very much, and the fact that it comes from beyond the line that separates your country from mine serves to make it all the more interesting. Wishing you continued success, I am,

R. F. D., Eau Claire, Wis., U. S. A.

Questions for Mr. Fawcett.

To the Editor "Farmer's Advocate":

Sir,—In your March 30th issue, Mr. Bliss M. Fawcett, of New Brunswick, criticizes what Prof. Grisdale has said about cost of producing a pound of beef on a steer from two to three years of age. Mr. Fawcett might tell us if he ever calculated what it cost him to produce such a pound of beef. If he did not, how can he say that Prof. Grisdale is wrong? Mr. Fawcett might also let us know how many farmers of his acquaintance, mentioning localities and names, have made money in producing beef in the conditions spoken about by Prof. Grisdale. It would be interesting to know if these men did not make money with some other line of their live stock or farming operations, and lose money putting on a certain number of pounds of beef on a two-year-old steer. If Mr. Fawcett calculates the crops raised on the farm at cost price, he loses what he could have made by selling these crops; and if Mr. Fawcett calculates the crops raised on the farm at the price he could have sold them, I believe he will find out that Prof. Grisdale is not far out. Is Mr. Fawcett ready to send a two-year-old steer to one of the Maritime Provinces Experimental Farms, and let them calculate what a pound of beef will cost, till he is three years old? If he is we could see what it costs to produce a pound of beef on a three-year-old steer in the Maritime Provinces.

GUS. A. LANGELEIR.

Wensleydale Sheep.

These appear to be the modern form of an old breed, once known as Teeswaters. They are said to be closely allied to the Leicesters, as their general appearance would indicate; and it is claimed for them that they, as well as the old Lincolns, were employed by Bakewell in his work of improvement of the Leicester. These long-wooled races of Leicester type appeared to have occupied the country from Yorkshire on the North-east, to Devon and Somerset on the South-west, and to have extended through Nottingham, Leicester, Warwick, Worcestershire, Gloucestershire and adjoining counties. They, therefore, occupied a broad band in the Midlands and in the North-eastern and South-western counties of England, following, indeed, the Northern boundary of the chalk formation, south of which the Down breeds chiefly have their home, and north of which the harder mountain breeds are to be found.

The Wensleydale long-wools took their name about the time the Yorkshire Agricultural Society commenced giving prizes for them, being more extensively cultivated in Wensleydale than in other parts. The present type has long been fixed, and no one who has achieved any success as



Royal London 904.

Wensleydale Bluefaced Two shear Ram. Winner as a shearling of First and Champion prizes at the Royal Show, England. As a two-shear, first at the Great Yorkshire, the Royal Lancashire (and champion), never having been defeated. Property of executors of Estate of Thos. Willis, Manor House, Carperby, Yorkshire, England.

a Wensleydale breeder has deviated from a line of pure breeding. The Wensleydale is a large, high-standing sheep, with a characteristic blue in the skin of the face and ears, and which sometimes extends to the whole body, though the shade is deeper on the face and shanks. The dark color is said to be cultivated because of the extensive use of the rams for crossing with the Black-faced Mountain ewes. It is found that the dark blue rams throw dark-faced lambs—a point much valued. The wool of the Wensleydale is of uniform open character, and of finer quality than any other long-wooled breed. Long, silky locks cover nearly the whole surface of the body, including the forehead, between the eyes, round the

ears, and on the belly and scrotum. In the class for "any other long-wools" at the Royal Agricultural Society's Show in 1903 and 1904, the Wensleydale wool won over all competitors, including Cotswold, Romney Marsh, Devon Long-wool, etc. It is claimed for them that they are unsurpassed for hardiness and strength of constitution, and that the quality of their mutton cannot be excelled, being noted for the absence of patchiness or excess of fat. The Wensleydale Bluefaced Sheep Breeders' Association and Flockbook Society is incorporated, Mr. John A. Willis, Manor House, Carperby, being Honorary Secretary, who will gladly give information respecting the breed. The Royal Agricultural Society of England gives a full prize-list for Wensleydales, and there are usually about as many exhibitors in this class as in most of the other breeds in the list. It is strange that this excellent breed has not been introduced into Canada, where its merits would seem to entitle it to a prominent place. There would seem to be a promising field for some enterprising breeder to establish a flock of Wensleydales in this country.

Molasses for Live Stock.

An Old Country exchange has the following to say regarding the British child's bread-appetizer and sweetener, familiarly known as "treacle":

"Some years ago, when the use of these substances for stock-feeding purposes was first introduced, treacle was very largely employed, and in some cases with such lack of discrimination as to be productive of injurious results, for it was found that when given in quantity to breeding animals it had the effect of injuriously affecting their procreative powers. On account of this, a reaction against the use of molasses for stock of any kind set in, and the consequence was that for a number of years foods of this kind labored under a heavy handicap, because of the prejudice generally entertained against them. For fattening stock the objection, which held good in the case of the breeding animals, did not apply, and the consequence was that many who might have profitably employed treacle for this purpose, were needlessly prevented from doing so by the dread of injuring their animals. Treacle, like all sugary compounds, is very fattening; and the experiences of our best feeders go to show that, when used with discretion, it is capable of being very advantageously employed in the fattening of farm stock. It is, of course, best adapted for use when the animals are being house-fed, and the most effective plan of giving it is to dilute it with hot water, and pour it over the chaffed fodder which the animals are receiving. In the use of treacle—as, indeed, in the use of all foods—moderation must be exercised at the commencement, and only a small quantity given. A pound per head per day is quite enough for a beginning, but when the systems of the animals become accustomed to it—for, as is well known, it is very laxative in its effects—as much as three pounds per day may be given with advantage to full-sized cattle."

What it Costs to Export a Sheep to Britain.

Sheep handlers are protesting against the vociferous manner in which exporters of live mutton have advertised their losses of late. In the history of the trade there never was a time when either cattle or sheep exporters admitted that their books balanced on the right side. "Their actions repudiate their talk," remarked a sheep man. "As a matter of fact, sheep sent across the water have made money this season. Take a 130-pound wether, costing 6c. on the Chicago market. It represents an investment of \$7.80. An additional \$2.00 will lay it down in London or Liverpool, and as the pelt is worth that much, the cost of the carcass is thus \$7.80. Such a sheep will dress not less than 48 per cent., or 62½ pounds of mutton, costing a little less than 12½c. per pound. Now, the stuff has been fetching 13c. and 14c. right along on the other side, when sheep are worth \$5 and \$5.80 here; and lately 16c. has been paid on British markets, a price that leaves a good profit. If exporters lose money right along, why do they continue operations?"—[Live-stock World.]

One Indication of Masculinity.

In the selection of their rams in autumn, flock-masters are always careful in avoiding animals with long, narrow necks. And very properly so. Experience shows that animals so constituted lack the masculine character and great constitutional vigor which it is always of so much importance that a sire should possess. A thick, stout neck, with a good arch, or crest as it is called, may always be taken as an index to constitutional vigor in the sire possessing it. The remark applies as well to horses and cattle as to sheep.

FARM.

Queries for Corn-growers.

What variety of corn do you prefer, 1st, for the production of ears and grain, for feeding and sale? 2nd. What variety do you prefer for ensilage? 3rd. What is your method of soil preparation, manuring and sowing, or planting? 4th. —What quantities of seed per acre do you advise? Concise answers on the foregoing and other points, will be helpful to others. Forward at once, giving your locality and nature of soil.

Eradicating Quack Grass.

To the Editor "Farmer's Advocate":

Sir,—I have several times read in the "Farmer's Advocate" queries and replies as to the best methods of eradicating quack or twitch grass. I have had considerable experience with it, and I often think of the big times we used to have with the quack roots when I was a boy. If we found a spot of quack grass in a field, we would start to root it out. We would plow the ground (shallow of course, as we wanted to keep it as near the surface as possible), then harrow it; and then with forks and handrakes (we had no horse-rakes then) gather all we could get into small heaps, and when dry have swudges enough to send the mosquitoes back to the swamps in a hurry. Of course, we had not nearly all the roots out of the ground; we only had them nicely thinned, so that they could grow stronger and faster, and we had fitted the ground in such nice shape, too, that it just suited the roots that were left. The result was that the next year a similar job had to be done on that ground, or Mr. Quack would have possession in earnest. But it is now a good many years since I treated it that way, yet I have had a good deal of it on different farms to deal with, and I have had no trouble to speak of with it. The old method makes a lot of useless work; and, secondly, it is a waste of material that can easily be turned into a fairly good fertilizer. What we must consider is, that the object in this case is to exterminate, and not propagate. To do this we must take nature's way, which is nearly the opposite of what has been practiced. If we examine a bed of quack grass that has not been disturbed for two or more years, we will find a mat of roots as near the surface of the ground as they can grow, and get sufficient earth to grow in. What we want to do is to reverse that order as completely as we can. As soon as the frost is out of the ground, while it is quite wet and soggy, and before growth starts in the roots, hitch a good strong team to a plow that will turn over a good wide furrow, and behind that put a man that does not care whether his furrows are set up on edge or not (if they are, part of the roots will be near the surface), and cut wide enough so as to turn the furrows over flat, and plant that quack as evenly and deeply as it is possible. Then, with whatever crop is grown on the ground that season, give as shallow cultivation as possible, so as not to pull up any of the roots; and as they are now down too deep to thrive well, they will nearly all rot, and enrich the soil. If a few of the roots here and there, not buried so deep as the rest, do grow, it will take some time for them to get ahead, and then it is only to repeat the simple operation.

A SUBSCRIBER.

Northumberland Co., Ont.

Poor Sugar-beet Pulp.

To the Editor "Farmer's Advocate":

We have taken the "Farmer's Advocate" for several years, and consider it a first-class agricultural publication. However, I do not think that the letters you have published so far concerning sugar-beet pulp will give farmers a perfectly fair idea of its value for feeding purposes. However it may be with farmers who live near enough to the factory to haul the pulp away while fresh, I can say from experience that the stuff that comes to us after lying in a heap at the factory for an indefinite length of time, and on the car for perhaps a week, then handled over two or three times while still heating, is practically worthless for feed, and this is the state in which farmers at outlying points are sure to get it. It is not only my opinion, but also that of most of those who have tried it in this district—that it is not worth the handling—and those who uphold it as equal in value with mangels or turnips must have had very different material to deal with from that with which the company favored us.

MASON.

Huron Co.

A Splendid Knife.

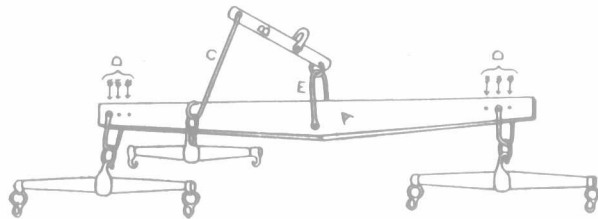
The premiums, the farmer's knife and the wrist bag, received, for which accept our thanks. They certainly are splendid value.

Wellington Co., Ont.

C. R. GERRY.

Three-horse Equalizer.

Regarding the three-horse equalizer, a drawing of which I send you, I wish to say that it is not intended for wagon work, only for use on implements, in which the tongue is a little to one side of the center of draft. As you already know, in using three horses the center of draft must be immediately behind the middle horse, and, therefore, the necessity of placing the tongue



to one side of where the connection for draft is. Hoping that this explanation is clear and quite satisfactory.

W. J. ANDERSON.

Simcoe Co., Ont.

Advantages.—Takes fewer clevises and does away with extra doubletree; carries middle horse's traces well up.

- A.—Doubletree, 6 ft. long.
- B.—Equalizer (steel), 12 inches; 4 inches below and 8 inches above.
- C.—Hook; equal to two clevises.
- D.—Extra holes, for use in plowing.
- E.—Extra large clevis.
- F.—Connecting clevis (should be kept well oiled).

Still Another Three-horse Evener.

To the Editor "Farmer's Advocate":

I have used various kinds of three-horse whiffletrees, but for plowing or harrowing the "three-ring iron" is generally used in this section. It is shown below. This is made of $\frac{1}{2}$ -inch by 2-inch iron; 4 inches from middle hole to bottom hole, and 8 inches from middle to top. It stands upright in use, with plow attached to middle



ring, whiffletree for the center horse to top ring, and doubletree for two outside horses attached to lower ring. This doubletree is made about a foot longer than the ordinary two-horse doubletree. This rig allows the horses to work close together, as the whiffletrees overlap.

Elgin Co., Ont.

L. M. BROWN.

Seeding in Prince Edward Island.

To the Editor "Farmer's Advocate":

In oats the leading varieties grown here are Banner, Egyptian, Rosedale, Waverly, Ligowo. I have sown the Waverly for two years, and have had good returns. In wheat the principal varieties are White and Red Fife, White Russian, Campbell's White Chaff. There is not much barley grown alone, but mostly with other grains. Two-rowed is preferred. Peas and vetches are grown with oats for green feed. On account of the weevil very little is allowed to ripen.

In selecting seed grain, if I want, say, 25 bushels oats to sow a certain field, I want at least 30 bushels to commence with. Set the fanners, if possible, where a draft is blowing through; open the slides so as to have all the wind possible; take out all the riddles; put in the coarsest seed screen in the bottom, to allow all the small grains to pass in the seed box; fill up the hopper, and turn hard. My reason for removing the riddles is, they carry the largest of the grains over with the chaff and small grains. If one had large doors in each side of barn floor, with a heavy wind blowing through, there is no machine invented will do as good work. My barn is too much sheltered to take advantage of the wind.

Institute delegates from Ontario tell us we sow our oats too thick. I sow of oats, 3 bushels by measure, or $3\frac{1}{2}$ bushels by weight, per acre; wheat, 1 bushel and 3 pecks; barley, 2 bushels; buckwheat, 1 bushel. I seed down all my grain crops, never taking two grain crops unless manured.

As I feed all the grain I raise on the farm, the bulk of the grain I sow is a mixture of oats and barley—2 bushels oats and 1 bushel barley. I can get more grain in the mixture per acre than sown separately.

I always try to get my plowing done in the fall, and as soon in the spring as the land is fit I run a three-horse spring-tooth harrow over each field, and as the "Farmer's Advocate" tells us, it will retain the moisture and not let it dry out or bake, which I know to be true from experience. When the weather becomes warm enough to sow, I put the disk harrow over it twice, and it is ready for the seed (I use a broadcast), and one more scratch with the spring-tooth and then seed down. Once over with the spike harrow, and then if dry on top roll at once.

I sow 8 lbs. timothy seed, 5 lbs. late mammoth clover, and 2 lbs. alsike per acre.

Prince Edward Island.

CHARLES CRAIG.

Alfalfa Seeding.

One of the greatest boons which new agriculture is bringing our farmers is alfalfa or lucerne, which is being grown throughout Ontario in increasing areas each year. As an ingredient of a permanent pasture seed mixture for dry, hilly land, it is unequalled; as a hay crop on the same kind of land it is invaluable, since once established it remains for years, yielding heavy crops of the very best hay, with no labor or expense but that of harvesting it. For soiling, it is even better than for hay, as for this purpose the full value of its food constituents is realized, with no loss by over-ripeness or imperfect curing. In some of the rolling parts of the country, as in sections of Southern Ontario, many of the steep clay hillsides, where other crops could not be very profitably grown, have been seeded to alfalfa, and are now yielding magnificent crops. The clay of the hillsides supplies the mineral elements in abundance; the alfalfa takes its nitrogen from the air. The hills afford good drainage and permit deep rooting, and here lucerne does its best. It will usually succeed, however, on any deep, well-drained soil, fairly rich in lime and potash.

As a considerable area will likely be sown this year, a few hints on seeding will not be amiss. Having chosen a good clean piece of suitable soil, preferably last year's root or corn ground, buy about twenty or twenty-five pounds per acre of the very best and cleanest seed obtainable. It is extremely foolish to take any chances with the seed of a crop intended to remain for years. Before purchasing, examine a sample carefully for weed seeds, and also test for germination. On soil at all likely to suffer from drought, sow the alfalfa without a nurse crop; on moist land, or rather in moist climates, a light seeding of barley, say a bushel or five pecks per acre, may be sown without seriously injuring the chances of the lucerne; in fact, it will help to keep down weeds. The seed should be covered lightly with the smoothing harrow. On dry land, some disk it in, but we believe harrowing is better. On account of the danger of weed seeds, we would not

advise application of barnyard manure—it should have been applied to the previous crop—but we would recommend an application of air-slacked lime and about twenty-five bushels per acre of wood ashes. More particularly would this be beneficial on light loam

or sand. Alfalfa is an irrigation plant, thriving best on the rich alkaline soils of the arid regions. Like clover, it is a gross feeder of potash, and like clover, also, the bacteria of the nodules of its roots will not flourish in an acid soil.

Artificial inoculation with these bacteria may be advisable where lucerne or sweet clover has not previously grown. It is believed that the bacteria of lucerne and sweet clover are practically the same, or very closely related species. The red clover bacteria are thought to be quite another kind, and hence of little or no use for inoculating alfalfa soil. The simplest method of inoculation is to sprinkle over the field a load of loamy soil from an old alfalfa field. However, the best way to ascertain whether it will succeed on any given farm, is to experiment on a small scale to begin with. The experiment need not be expensive, and generally speaking it will prove satisfactory on well-drained land. A plot of alfalfa near the barn is a great convenience for supplying green fodder, to be fed in the stables in the summer, as it can usually be cut three times during the season of the first year, and sometimes twice the first summer.

Treat Seed Oats for Smut.

It is probable that there is an annual loss of fully three million bushels of oats in Ontario through the injury to the crop caused by smut. This could be largely prevented if the seed oats were immersed for twenty minutes in a solution made by mixing one pint of formaldehyde (formalin) in from forty to forty-five gallons of water. This solution has the power of killing the spores of smut and leaving the oats uninjured. If the treatment is made several days before seeding takes place, the oats should be spread on a floor and thoroughly dried; but if it is made immediately before sowing, it is only necessary to partially dry the seed. Great care should be taken to prevent smut spores from bags, bins, grain-seeders, etc., becoming mixed with the oats after the formalin has been used. This treatment is easily performed, comparatively cheap, and very effectual, and if thoroughly performed, need not be repeated from year to year.

PROF. C. A. ZAVITZ.

Premiums Appreciated.

I beg to acknowledge the receipt of your premiums in good order—the microscope and reading glass. They are very nice, both of them, and I thank you very much.

Waterloo Co., Ont.

CHAS. D. BROWN.

Frenzied Potato Culture.

POTATOES AT \$1,250 PER POUND!

How New Expensive Varieties Were Raised and Developed.

From time to time during the past year short accounts appeared in the press of the fabulous prices asked and obtained in England for new varieties of potatoes, and of the enormous crops obtained from a small amount of seed. Many people frankly disbelieved the reports, while others were doubtful, and wondered how such results were obtained.

I determined to find out the truth, and had a good opportunity when on a visit to South Lincolnshire, the chief potato district of the Old Country. I went straight to the principal growers, and such information as I obtained is absolutely reliable, and all the statements as to quantities and prices are facts, vouched for by men of integrity. I am thoroughly convinced that Canadian farmers and gardeners can obtain similar results by familiar methods. [NOTE.—But probably not the fabulous prices.—Ed. F. A.]

Much patience is required in the raising and development of these new varieties, and it sometimes happens that the man who raises a new variety does not benefit much by it. He may, like an inventor, sell his discovery for a mere song, while the buyer makes his thousands.

Nearly all the new varieties are hybrids, or crosses between two older varieties. The crossing may be a natural one, or the result of the gardener's art, as in flower hybrids. The seeds contained in the plum (or apple, as it is sometimes called) are sown early in the spring, under glass. The plants from these will, perhaps, all be different, and only the best are selected for the next year's seed. This process goes on for about five years, at the end of which time, the best, or what in the grower's opinion is the best, is saved, and the new variety is ready for introduction to the world. Very often, after two or three years' care, the seedlings turn out to be useless, and that time was entirely wasted. To put the matter in a nutshell, the law of the survival of the fittest is in force here, as in the whole of nature.

It will be easily understood that special training is required for such work, and even that is useless without a keen insight and a knowledge of what will be required in the potato world for several years in advance. Mr. A. Findlay, of Markinch, Scotland, for the past twenty or thirty years, has introduced many of the most profitable varieties of potato in Great Britain. All the growers who were approached on the subject, agreed that he has done more for the homely, but necessary, potato than any other individual. His whole energies, and those of the growers (as distinguished from the actual raisers) have been and are centered on the production of new disease-resisting, and at the same time prolific, varieties. Their efforts appear to have been crowned with a considerable amount of success, evident from the results they obtained.

As regards price and produce, the most sensational potato of all time is undoubtedly the "Eldorado," of Findlay, which has so far fully justified the raiser in giving it such a high-sounding name; for it has been a veritable mine of gold for those who were so fortunate as to get possession of some of the seed. One of these was Mr. Geo. Massey, who leaped into prominence and caused an immense sensation by the high prices he obtained for his variety. His first sale was made in December, 1903, \$7,000 being obtained for fourteen pounds of Eldorados. This, however, was destined to be beaten in the following spring, when a single potato, weighing five ounces, was sold for \$250, and some smaller tubers at the rate of \$1,250 per pound. One naturally wonders how it is possible to make any profit after paying such a high price for the seed; but the following authentic case will show, at the same time, how it is done and how it is profitable. This case constitutes a record, but many other yields ran it very close.

In February, 1904, Mr. Charles Needham, of Wildsworth, Lincolnshire, England, bought a small Eldorado potato weighing HALF AN OUNCE from Mr. Massey, the price being \$30. It is interesting to note that half an ounce of pure gold is worth \$10, so that the potato cost three times its weight in gold.

On the 10th of March this precious potato was placed in a common garden frame, without any covering of soil, and ten days afterwards eleven sprouts were taken off and planted. Between the 20th of March and 30th of June other sprouts were taken, and cuttings from the earlier sprouts, making in all 120 plants from the single potato. The last sixty cuttings were planted out in the open between the 1st of June and 6th of July.

Now, as to the produce. The first 11 plants were separately weighed in the presence of witnesses. Five roots weighed over 12 pounds each, the heaviest being 14½ pounds; and the total weight 110 pounds, or an average of 10 pounds for each root. The 60 late cuttings produced 251 pounds, making 361 pounds from 71 plants. Mr. Needham sold 49 plants (they were then worth \$20 each), but it is fair to assume that if

he had kept them they would have yielded as well as the others. The total would have been considerably over 500 pounds. Now, as to the profit: There is a good demand for Eldorado seed this season at \$2.50 per pound. Five hundred pounds at that price amounts to \$1,500. Surely that is profit enough for any average man, and would pay handsomely for the care bestowed on the original potato.

The eleven first shoots were planted out five feet between the rows, and three feet between each plant, and the haulms (tops) were so luxuriant that they covered the whole of the space between. One of the largest potatoes weighed two pounds, and from the sixty late plants 12 were weighed, and turned the scales at 16 pounds. Out of a

potatoes are worth quite as much as, if not more than, one thousand bushels of late ones.

One might go on writing of the good qualities of many more new and valuable varieties; but the more there are, the harder it is to choose, especially when so many are really good. No less than 460 varieties were shown at the National Potato Show last year. However, enough has been said to show, and I hope, to prove, that the potato has a great future before it in England; and if in England, why not in Canada?

W. HARGRAVE.

Open the Furrows.

"I have one piece of oats on my best ground, and it should be my best crop; but they are not doing nearly as well as another piece which I did not expect so much from, and this is on account of not having run the furrows on the better piece. When the big rain came, the water did not get away quickly enough, and the clay baked. I wanted the boys to run the furrows before leaving the field, but they were in a hurry to get through, and thought it would not make much difference anyway." This is the substance of a conversation I had last summer with a farmer friend. The boys won out so far as having their way in the matter was concerned, but the result was not profitable.

No form of seeding is commendable that is not well done. Half doing, to get the work turned off in a hurry, is most detrimental to success. Nothing should be slighted with a belief that this will be a dry year, or otherwise. Speculation as to the weather does not pay when our crop is at stake. Let us not be satisfied until we have done all that the most inclement weather can demand, and if we have a clay field to work, let us treat it as clay requires.

Wentworth Co., Ont.

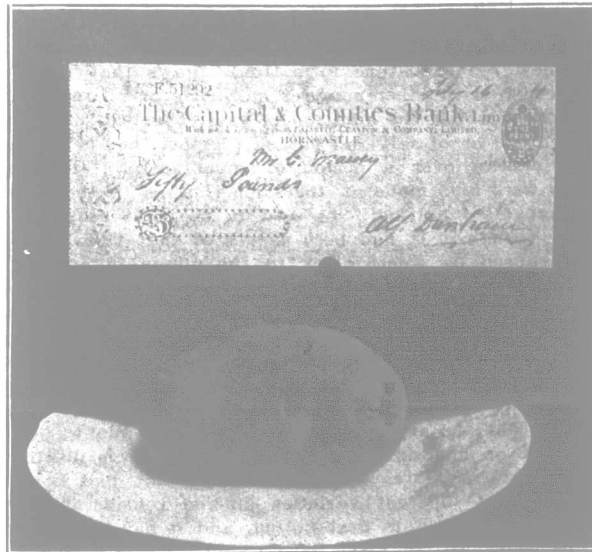
J. R. H.

The Farmer's Tool Shop.

If there is one thing more than another that is being neglected about the average farm it is the care of the numerous tools and other small instruments which should be found on every well-appointed farm. What a convenience it is in a hurried time, when anything goes wrong about the particular implement you may be using, to know just where to go to get the necessary tools to mend it, instead of having to waste considerable time going from place to place hunting it up, as is very often the case?

Every farmer should have a suitable building in which to keep his tools and other small knick-knacks. This building need not be large, but should be situated somewhere convenient, and, preferably, separate from the other farm buildings. It should be provided with a window large enough to afford sufficient light, and built so that the snow cannot blow in during winter, and have a small box stove to heat it if occasion required.

It may, if found necessary, have all the requisites of an ordinary carpenter's shop, but all that is required on the average farm is a carpenter's bench, with a good vise on both ends of it, one somewhat smaller than the other. This bench may be stationary or portable, as required, but a stationary one may be found most satisfactory. It should be provided with a number of shelves around the walls, each shelf with its own particular article, and that article kept there and nowhere else when not in use. A suitable place should be found for a ripping saw, a crosscut saw, a panel, a compass, a lance-tooth and a bucksaw; also a corner for the three necessary planes—the jack plane, the try plane, and the smoothing plane. Other tools which should be found in every farmer's tool shop are: Augers; brace and bits of different sizes and shapes;



Eldorado Potato.

Weight five ounces; sold for \$250 00

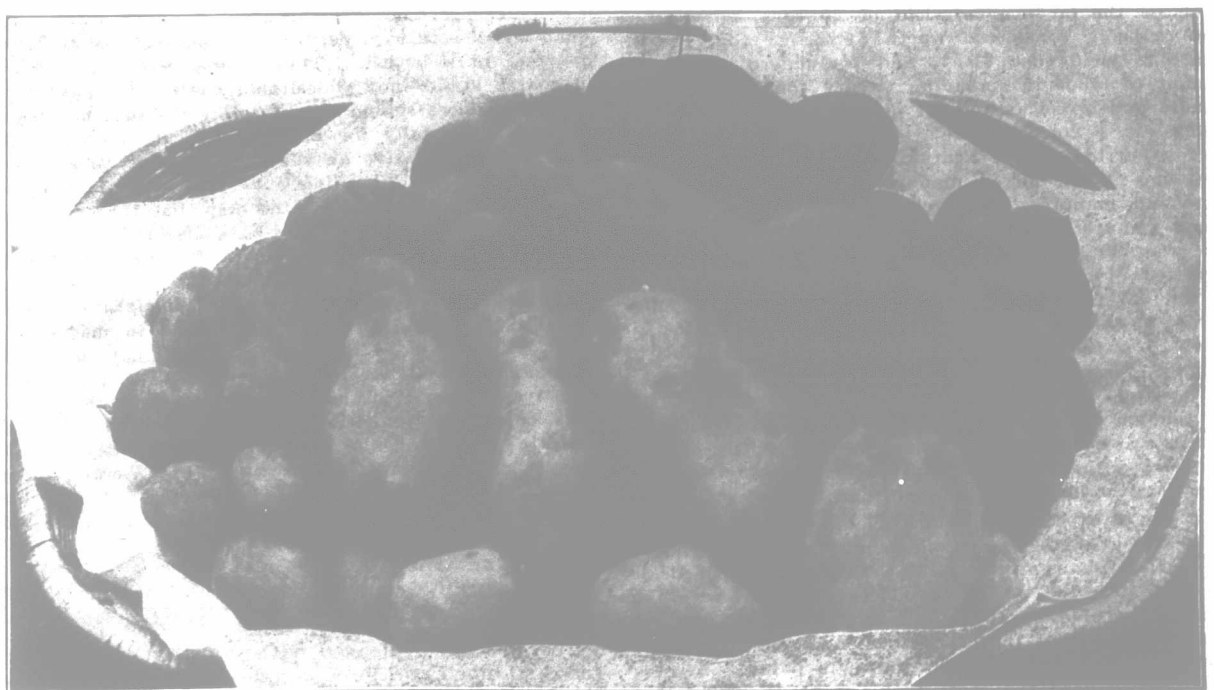
total of 361 pounds of potatoes, 100 single tubers weighed 100 pounds.

The vigor of the potatoes was absolutely unimpaired, as the sight of them bore witness. The whole crop was quite free from disease of any kind, and were nearly all marketable size; and the weights speak for themselves.

Last fall a well-known Scotch grower gave Mr. Findlay \$100 for a single tuber of a new variety. He afterwards refused \$125 for it, but in order to oblige his client, who was very pressing, the grower allowed him to cut out a single eye, for which he (the grower) received \$25. This was since the beginning of 1905.

As for the treatment this wonderful crop received, thirty plants got no manure at all; others had the same manure as the ordinary potato. In no respect were they treated better than common field potatoes. The Eldorado was first sent out by Mr. Findlay in the spring of 1903, and is expected to be on the market for culinary purposes in the fall of 1907.

There are other new varieties. The Leader last season produced (without the method of propagation described above, but from the potato direct) a crop of 600 bushels to the acre. The produce was lifted within ten weeks from the time of planting; they were fully matured, and fine in appearance and flavor. Again, a late variety, Findlay's Northern Star, last season produced, in some cases, as high as a thousand bushels to the acre, while in most cases the yield has been over five hundred bushels. Of course, it will be understood that five hundred bushels of very early



Basket of Eldorado Potatoes.

Weight fourteen pounds; sold for \$7,000 in December, 1903.

a countersink; screwdrivers; chisels; drawing knives; files; a try, bevel and framing square; gimlets, and the several smaller planes. This should also be the place to put all logging chains, shovels, picks, axes, etc. If such a place were provided on every farm there would be less loss of the farmer's valuable time, often when it is most needed.

Peterboro Co., Ont.

J. H. STARK.

Artificial Manures and Their Effects on Root Crops.

To the Editor "Farmer's Advocate":

Sir,—Now that in some districts at least of the old-settled parts of Ontario, farmers are beginning to consider seriously the question of artificial manures, and the growth of so many towns is creating a demand for straw, this would seem to be an opportune moment to enter into a discussion of the value of artificial manures and their effect on various crops. In England, Germany and France, where a great deal of straw and hay is sold off the land, farmers find it necessary to supply something in their place to prevent the rapid deterioration of their land. It is almost impossible in considering this question of manures, under such conditions as prevail on our large English farms, to correctly sum up even approximately the exact loss or gain on a year's farming transactions, no one year stands altogether by itself, hence the practice, when one tenant leaves a farm to be taken over by another farmer, by which the incoming tenant pays an "incoming" fee, determined largely by the residual manurial value of all straw, etc., left by the leaving tenant. Where so much of our land is all down to grass the farmer, whether he be a dairyman, or is stock feeding for the markets, must depend not on the grain produce of his own farm to feed his stock, but on the Liverpool grain markets, whence come vast supplies of Canadian and American grain, with cottonseed and linseed in various forms, whilst he sells most of his own grain at a higher price than he can buy at, retaining only a part of his straw. This is where the artificial manure comes in. He sells his wheat straw at a price per ton to some factory in the town, and buys some artificial manure to the same weight, but at two or three shillings a ton less, whilst its effectual manurial value is possibly from twenty to even as much as forty times that of the straw. A very careful study of the action of these artificial manures is necessary, as, in some cases, a combination of two manures shows a most disappointing result, in that one may neutralize the other. This sometimes happens when nitrate of soda and basic slag are used on grass land. For some years experiments have been carried on in the counties of Stafford and Shropshire, under the auspices of a joint committee of their respective county councils, and directed by the experts of the Harper-Adams Agricultural College, at Newport, not only on the farm connected with the college, but also on farms in different districts of the two counties. The results have been carefully tabulated for several years, along with the cost of the manures; and from these it is possible to calculate the cost of the increased yield, compared with the next plot of unmanured land in the same field. Let me give some of the results, with the cost, farmyard manure being valued at \$1.25 per ton. I give the approximate figures in the Canadian coinage. It must be also remembered the whole cost of dressing with farmyard manure is charged to the one crop, whilst its value is certainly felt more by succeeding crops than is the case with some of the artificial manures.

In an experiment with swedes, at Blurton, the unmanured plot produced 10 tons 15 cwt. per acre, whilst an adjoining plot dressed with five hundredweight of superphosphates and $\frac{1}{2}$ of a hundredweight of sulphate of potash gave a yield of over 14 tons 12 cwt., or an increase of 3 tons 17 cwt. per acre, the total cost being \$5.45, or \$1.40 per ton of increase. A plot dressed with farmyard manure, twenty tons to the acre, produced the far heavier yield of 25 tons 2 cwt., but manure being considered worth \$1.25 per ton, the increase in yield cost \$1.51, and the difference in the amount of labor in spreading twenty tons of farmyard manure and broadcasting not quite six cwt. of artificial manure is a consideration. Another experiment with swedes, carried out at Peatswood, was on the economy of using home mixed manures as against purchased compound manures. The cost per acre for the compound manure was about \$11.50, and the yield in this case was 20 tons 11 cwt. The home mixed manure consisted of and was sown at the rate of, superphosphates, 3 $\frac{1}{2}$ cwt.; sulphate of ammonia, $\frac{1}{2}$ cwt.; and nitrate of soda, 1 cwt., per acre, and the yield was 20 tons 16 $\frac{1}{2}$ cwt., or an increase over the other plot of 560 lbs. (5 cwt.), and the cost of the manure was about seven dollars. In the case of an experiment at Blurton, on exactly the same lines where the compound manure was used the crop per acre was slightly heavier than where the home-mixed preparation was used, but even then the latter was the more profitable.

A set of experiments, which should be of interest to sugar-beet growers, is one which has been conducted at the Harper-Adams Agricultural College, and which deals not only with the tonnage produced, but also with the composition of the roots produced. The crop is, of course, swedes, but the amount of sugar in the juice is given, and that is, after all, the main point. All the manures increased the crop, and the heaviest crop per acre was taken off the plot dressed with dung, at the

rate of 15 tons per acre, with dissolved bones, 3 1-3 cwt.; sulphate of ammonia, nitrate of soda, and sulphate of potash, each about 1 cwt., and kainit, 4 cwt., the artificial costing \$12.75 (nearly). The crop was over 24 tons per acre, rather more than double the crop from the unmanured plot, but the quality was very different. The roots from the unmanured plot contained 14.92 per cent. of dry matter, and their juice contained 12.65 per cent. of sugar, whilst those from the best manured and heaviest yielding plot showed 11.85 per cent. dry matter, and the percentage of sugar in their juice was 9.59. Then another plot, manured with dung and dissolved bones, at the rate of twenty tons per acre, and 3 1-3 cwt. per acre, respectively, produced just under twenty tons of roots, the cost of the artificial manure being \$4.50 per acre; the percentage of dry matter was 11.96, and of sugar in the juice, 8.80. Again, after comparing the results of a series of experiments on this particular farm (where the plow land is of a medium loam on a clay subsoil, resting on the new red sandstone formation), shows that the use of potash with other manures has little or no result on the crop, whilst the addition of kainit, instead of either salt alone or of salt and potash together, has given the best results over a period of some years. Observations were also made at the same time as to the cause of mangels "bolting" to seed in the first season of their growth. It had been suggested that this bolting was caused by some injury to the plants in an early stage of growth, and to test this point the hand singling of several small plots was carried on close to plots of the same variety on which the hoe had been used, but at the end of the season it was found that the number of bolted plants was about equal in both cases. It had also been suggested that the age of the seed affected the plants bolting, but on making a trial of seeds from seven different years' crops, it was found that each plot had bolted equally, but different varieties differed considerably in the number of plants that bolted, and it has thus come to be considered that the different methods of producing seed is in part responsible for the bolting, whilst the season is also responsible for it to some extent, as in 1903 some varieties showed no tendency to bolt, and in the next season, which was much drier, the same varieties bolted rather badly. The bolting greatly affects the feeding value of the plants, as, taking the case of one variety alone, the sound roots produced 8.70 per cent. of sugar on analysis, and bolted roots of the same variety produced 5.64 per cent. sugar.

England.

ERNEST S. SANDERS.

Millets and Their Uses.

The German millet (*Setaria Italica Germanica*) differs from the common millet, in being larger and coarser. German millet is a plant 3 $\frac{1}{2}$ to 5 feet high. It produces an immense amount of forage, but does not mature so early, neither is it as good a drouth-resister as the common or Hungarian millets. The place of millets on the farm is that of supplementary crops, to be sown for fodder when the season is late. They are useful in short rotations—useful to aid in getting rid of weeds, and as a supplement to other forage plants, and to be used in place of a bare fallow. The millets in common use are the foxtail millets (*Setaria* or *Chætochloa Italica*, var *Germanica*). These plants thrive well in rich, warm, loamy soils, but not on thin, poor land. It has been stated that a crop of millet on new breaking helps in preparing it for a subsequent crop. German millet is supposed to have been brought from British India, as it was formerly known as Bengal grass. Hungarian millet was for a time very popular, but it has a tendency to volunteer, which is a quality not favored by farmers. Millets are generally sown in the latter part of May or in June, on spring plowing, and if sown on breaking is sown after the breaking has been disk harrowed. The millets can be sown in the seeder or by hand—the former way preferably. The quantity of seed used per acre is from one-half to three-quarters of a bushel. Thin seeding frequently results in coarse stalks—not a desirable quality for hay. This class of fodders should be cut before the seed has begun to ripen, especially for horses. If cut too early the hay has too laxative an effect. The best time to cut is from complete "heading out" until late bloom; or, as one authority puts it, "the best time to cut for hay is when the majority of heads have distinctly appeared." From experiments made in North Dakota, millet hay, in which the seeds had been allowed to ripen, had been found distinctly injurious to horses. Immature or over-ripe millet is said to produce abortion in mares and cows, although data of an experimental nature of this statement are not available. The millets are slightly laxative in effects on the bowels, and stimulate the kidneys to work; immature millet is laxative, over-ripe diuretic (acting on the kidneys). Once a day is sufficiently often to use well-grown, properly-cured millet hay for horses, and it should not be fed oftener than twice a day for other stock; preferably not at all to in-foal mares or cows advanced in calf.

Good Common Sense.

We are much pleased with your paper. It contains so much real good common sense, not only for the head of the house, but for the whole family.

Bruce Co., Ont.

R. H. REID.

DAIRY.

Supplementary Summer Feeds.

"Beginner" writes, asking our readers to advise him through the "Farmer's Advocate," what variety of corn, or what single grain or grass, or mixture, they find best suited for supplementary summer feeding of dairy cows. The enquiry is timely, and the replies should be prompt as well as concise.

Alfalfa as a Substitute for Bran and Cotton-seed Meal.

An important point in feeding economy is to find something that can be raised on the farm to take the place of the expensive protein feeds, such as bran, oil cake and cotton-seed meal, which it is usually necessary to purchase in greater or less quantity and feed with the home-grown fodders to make a good milk ration. The value of alfalfa for this purpose is being recognized by practical dairymen, to whom the following results of an experiment by A. M. Soule and S. E. Barnes, of the Tennessee Station, will be quite credible:

Twelve cows were divided into three groups, one of which was fed corn silage, wheat bran, cotton-seed meal; one, corn silage, alfalfa hay and cotton-seed meal; and one, corn silage, alfalfa hay and wheat bran. The feeding period was four months.

Lot 1 consumed 21,376 pounds of silage, 3,624 pounds of wheat bran, and 1,207 pounds of cotton-seed meal, and produced 7,521 pounds of milk and 439.05 pounds of butter-fat. Lot 2 consumed 20,558 pounds of silage, 3,638 pounds of alfalfa hay, and 1,871 pounds of cotton-seed meal, and produced 7,689 pounds of milk and 424.89 pounds of butter-fat. Lot 3 consumed 16,139 pounds of silage, 3,350 pounds of alfalfa hay, and 3,725 pounds of wheat bran, and produced 6,414 pounds of milk and 347.99 pounds of butter-fat. The digestible matter consumed by the three lots for the production of a gallon of milk was, respectively, 6.5, 6.6 and 7.9 pounds, and for the production of a pound of butter, 11.3, 12.1 and 14.7 pounds.

From these results it is concluded that one pound of cotton-seed meal could be replaced by about three pounds of alfalfa hay, and one pound of wheat bran by about 1.5 pounds of alfalfa hay. The limit of this substitution will depend upon the individual capacity of the animals to consume the hay. It is stated that ordinarily not more than ten to twelve pounds of hay will be consumed when fed with silage, but that this amount may be increased to fifteen or twenty pounds when fed without silage. In this experiment the favorable results following the substitution of alfalfa for a part of the concentrates were attributed in a large measure to the feeding of these materials with a fine quality of silage.

The net cost of producing a gallon of milk allowance being made for the cost of food and attendance, and also for the value of the manure, was 7.1c. for lot 1, 5.7c. for lot 2, and 8.2c. for lot 3. The net cost for a pound of butter was, respectively, 12.3, 10.4, and 15.3c. From the standpoint of economic production, the best results were, therefore, obtained with lot 2. With alfalfa hay at \$10 per ton, and wheat bran at \$20, the saving effected by substituting alfalfa for wheat bran is estimated at 19.8c. per hundred pounds of milk, and \$2.80 per hundred pounds of butter.

Experience with Milk Fever.

To the Editor "Farmer's Advocate":

In the "Farmer's Advocate" of March 2nd, I noticed a statement about milk fever with which my experience does not agree. One cow of mine last summer had the fever before being milked at all, as she went down before the calf had time to take any milk. Not being milked may have been in her favor, as she made a quick recovery. I had another case in hot weather in August. The cow was milked out clean after the birth of the calf, which was allowed to remain with her, and in seven hours she had the fever, and in eleven hours she went down to rise no more, as she died two days later. Another cow, I might mention, a short distance from the farm, went down with the fever before the birth of the calf even. I have no doubt this case was rare, as she was unreasonably overfed. I need hardly add that it was fatal.

Redeau Stock Farm.

ALBERT E. WELLER.

[Note.—We have heard of cases such as these before, but believe they are very rare. In nearly every such instance the cow had been milked out before calving, as some people have done, with a view to preventing milk fever, which is a great mistake. It is very seldom that a cow whose udder is much swollen before calving contracts milk fever, if she has not been milked out clean in the first three days after calving. On the other hand, in most of the cases we have known the udder was quite free from swelling, and in some cases quite soft and flabby. We have not a doubt but the cows mentioned by our correspondent might have been saved by inflating the udders with air.—Ed.]

Weight and Sale of Cream and Milk.

1. What is the weight of a gallon of cream, 30 per cent. and 40 per cent. fat?
2. What is the weight of a gallon of milk, say milk containing 4 per cent. butter-fat?
3. Which will pay the best for a farmer, to sell cream at 50c. a gallon of 10 pounds' weight, 30 per cent. fat; or milk at 14c. a gallon, 4 per cent. fat?

Ans.—1. One gallon of cream testing 30 per cent. fat will weigh, according to Farrington, 9.96 pounds; testing 40 per cent. fat, 9.66 pounds. Ordinarily, however, cream weighs about 10 pounds to the gallon, and the percentage of fat in the cream will make practically no difference in the weight as determined by the average scale. Cream testing 25 per cent. fat, weighs practically 10 pounds to the imperial gallon.

2. A gallon (imperial) of milk weighs 10.3 pounds on the average. It varies according to the specific gravity, but this variation would not be recorded on the average scale.

3. It would pay your subscriber much better to sell milk at 14c. a gallon than to sell cream testing 30 per cent. fat at 50c. a gallon. At the prices named, fat in the form of cream would sell for 16.6c. per pound, and in the milk at 33.7c. per pound, assuming that all the fat was taken out of the milk in the form of cream. Stated in another way, the amount of milk required to produce one gallon of cream would be about 7.3 gallons, which, at the price named, would be worth \$1.02, and the gallon of cream would only be worth 50c. Where the cream only is sold, the farmer would have the skim milk for feeding purposes, but to offset this to some extent would be the labor of separating the cream from the milk. He would need to place a very high value on the skim milk in order to make cream selling as profitable as selling milk at the prices named.

structor's course at the Ontario Agricultural College Dairy School, Guelph. In all, Ontario will have a grand staff of 37 men engaged in the work of instruction this season.

O. A. C. Dairy School Graduates.

The class of 1905 is one of the brightest which has graduated from the O. A. C. Dairy School since its inception in 1893. Among its number are included four from the Maritime Provinces, one from Argentina, two from Wisconsin and one from Pennsylvania. The remainder are from various parts of Ontario. The School has a reputation as wide as the Ontario Agricultural College, of which it forms a part. It is a great advantage to the students of the Dairy School to have an opportunity of taking a number of lectures from many of the members of the College staff. This is especially beneficial in chemistry and bacteriology. We are pleased to hear that increased accommodation is soon to be provided in these two departments of the College work.

The term closed with an "At Home," tendered to the students and their friends by the instructors. The class presented Prof. Dean with a handsome chair. Following are the results of the examinations:

Proficiency List.—Factory Class—1, W. H. Freund, Hilbutt, Wisconsin, U. S.; **2,** T. H. Lund, Guelph, Wellington, Ont.; **3,** J. H. Wilson, Mountain, Dundas, Ont.; **4,** J. Bower, Harriston, Wellington, Ont.; **5,** H. F. Hughes, Petitoctiac, N. B.; **6,** G. F. Agur, Hollen, Wellington, Ont.; **7,** R. W. Burns, Butternut Ridge, N. B.; **8,** W. W. Dool, Bishop's Mills, Grenville, Ont.; **9,** G. P. Greensides, Atwood, Perth, Ont.; **10,** R. P. Denison, Truro, N. S.; **11,** F. Ballantyne, Atwood;

Cool Curing of Cheese.

Considerable interest has been aroused among cheesemakers by the lecture delivered by Mr. D. K. Robb, of the West of Scotland Agricultural College, at Castle-Douglas. It is gratifying to find the agricultural college authorities taking part in research work, but it is most unfortunate that the public should have, as authentic and reliable, results which require explanation and a good deal of qualification before being of any practical value. Mr. Robb's experiments are only original as applied to Scotch Cheddars, as they have been thoroughly investigated and tested in the United States and Canada many years ago. The results have all gone to prove that cheese cured at a medium temperature, viz., 50 to 58 degrees F., have been more perfect than cheese cured either at a lower or higher temperature. The conditions of curing in America are different from those ruling in Scotland, and what is suitable for the one country is not always suitable for the other. In America, cheese are mostly all made from mixed milk that has been conveyed from considerable distances to the cheese factories. This starts the ripening process, and causes their cheese to ripen quicker at a lower temperature than in Scotland, where cheese are mostly made from the milk of one dairy. In this our makers have a great advantage over our American cousins, the milk being freer from harmful germs, which a low temperature keeps from developing. I think it unfortunate that Mr. Robb omitted one very important point in giving the results of his experiments to the public, and that was the price realized for those test cheese. I have been informed by those who examined them that they were not value for within 10s. per cwt. of the average price of Cheddar cheese at the time of examination. It may be of interest to a number of our farmers who do not make fine cheese to know that by keeping a secondary cheese at a cool temperature, they do not develop their bad flavors so quickly as at a higher temperature. We are not interested, however, in knowing how to make or keep a secondary cheese, as it should be the aim of every dairyman to make his cheese first-class. The writer has had over forty years' experience in this trade, and would strongly warn dairy farmers against keeping their temperature lower than from 58 to 63 degrees, as I have always found we get a number of late-made cheese that are kept far too near the 40-degree temperature by being badly fired and cold kept. We count on an average, loss of 10s. per cwt., as on the same cheese when properly kept. At a time when our trade is being sorely pressed by the Canadians, it would be unfortunate if our dairymen should follow experiments on the lines indicated by Mr. Robb, as I have no doubt that from fuller information and experiments he will find that it is not in the present system of ripening we fail, but in the want of the fine nutty flavor that is so much prized by the public.—[Andrew Clement, Scotland, in Scottish Farmer.]

Soiling Experiments in Maryland.

In the Maryland Station bulletin 98 is a record of some soiling experiments which will be of interest at this season. They are not to be regarded as conclusive, but serve to bring out a few good points. In these experiments green rye gave a decided decrease in milk flow, as compared with silage fed the previous week. Green wheat, fed to 21 cows in alternate 15-day periods with green rye, gave considerably better results than the rye. It is believed that the feeding value of green rye has been much over-estimated.

In another experiment, soiling and pasturing were compared. Ten cows were fed on green corn for one week, following which period five of them were continued on green corn and five turned on luxuriant grass and clover pasture for thirty-five days. The cows changed to pasture increased in their average daily yield of milk from 15.8 to 17.2 pounds, and the cows fed corn continuously decreased from 15.3 to 14.9 pounds, a difference of 1.8 pounds milk per day in favor of the pasture. Some advantages of soiling, such as the greater quantity of feed obtained per acre, and consequently the greater number of cows that can be kept on a given area are, however, pointed out, though these advantages are doubtless offset by the greater amount of labor entailed. For the ordinary farmer, we question the economy of soiling, except as a supplement for the usual dry midsummer season, during which pasture fails to make much growth. For this period every dairyman should provide himself with silage or a couple of acres of some soiling crop, as oats and peas, followed by corn. This simple precaution will not only maintain the milk flow, but be the means of greatly increasing the stock-carrying capacity of the pasture.

Eastern Ontario Dairy Instructors.

Mr. R. G. Murphy, of Brockville, Secretary of the Eastern Ontario Dairymen's Association, advises us that the list given below will constitute the staff of syndicate instructors for the season of 1905. They are all taking an instructor's course at the Kingston Dairy School, and will commence work about April 15th. The idea of having all come together is that in addition to their excellent individual qualifications they will start out upon one general plan of operations, thereby being the better able to secure a uniform product:

G. H. Robinson, Kingston; J. B. Lowery, Frankford; R. W. Ward, Foxboro; A. H. Wilson, Athens; I. Villeneuve, St. Isidore de Prescott; P. Nolan, Philippsville; T. H. Thompson, Madoc; A. McDowell, Alexandria; W. W. Dool, Bishop's Mills; L. A. Zufelt, Chesterville; J. H. Echlin, Balderson; J. Buro, Mille Roches; R. A. Rothwell, Maxville; G. H. Bensley, Warkworth; Hugh Howey, Belleville; W. J. Ragsdale, Merrickville; C. W. Norval, North Williamsburg; S. S. Cheatham, Gananoque; R. Elliott, South March; D. J. Cameron, Campbellcroft; D. M. Wilson, Kemptville; Robt. T. Gray, Marmora; J. F. Singleton, Newboro; Jas. Irwin, Bancroft; C. A. Puhlow, Picton; G. G. Puhlow, Chief Instructor, Kingston.

The ten instructors for Western Ontario, with Mr. G. H. Barr, Association Secretary, are taking an in-



Sweet Eyes (Imp.) 173933.

First 3-year-old Jersey Cow at Canadian National Show, Toronto, and at Central Canada Show, Ottawa, 1904. Property of B. H. Bull & Son, Brampton, Ont.

Perth, Ont.; **12,** D. F. Stewart, Hampstead, Perth, Ont.; **13,** T. W. Grieve, Wyandotte, Wellington, Ont.; **14,** A. A. Freund, Hilbutt, Wisconsin, U. S.; **15,** L. E. Smith, Oliver, Middlesex, Ont.; **16,** A. E. Barber, Grafton, Northumberland, Ont.; and **W. J. Murphy, Bornholm, Perth, Ont.; 18,** Miss Annie W. Green, Loyal, Huron, Ont.; **19,** E. A. Hodges, Toronto, York, Ont.; **20,** W. T. Harris, Condersport, Pa., U. S.; **21,** H. V. Godoy, Buenos Ayres, South America.

Specialists in Buttermaking.—1, D. E. McKenzie, Kinmount, Victoria, Ont.; **2,** L. R. Sutherland, Six Mile Brook, N. S.; **3,** R. W. Brown, Stamford, Welland, Ont.; **4,** F. C. Ward, Guelph, Wellington, Ont.

Farm Dairy.—1, Lawrence Jenkinson, Toronto, York, Ont.

Moisture Percentage in Butter.

A despatch from London, Eng., contains the following: "The Weddeland Co., in their weekly market report, referring to the standard of moisture in butter, say: "The Government has re-introduced the butter bill, which fixes 16 per cent. as the legal amount of water to be allowed in butter. If the bill becomes law, the present low percentage of moisture in colonial butter will gradually increase, until it closely approaches the sixteen per cent., for it would be more than human to expect the colonial buttermaker to wilfully lose 34 shillings per cwt. by sending it to us with only 10 or 11 per cent. moisture, when he can legally send it with 14 or 15 per cent, without at all damaging the butter."

temperature by being badly fired and cold kept. We count on an average, loss of 10s. per cwt., as on the same cheese when properly kept. At a time when our trade is being sorely pressed by the Canadians, it would be unfortunate if our dairymen should follow experiments on the lines indicated by Mr. Robb, as I have no doubt that from fuller information and experiments he will find that it is not in the present system of ripening we fail, but in the want of the fine nutty flavor that is so much prized by the public.—[Andrew Clement, Scotland, in Scottish Farmer.]

Pure Culture Starters.

The National Creamery Buttermakers' Association will consider at their next convention a proposition as follows, as a protection against impure cultures and incompetent manufacturers:

1. Only butter cultures bearing the label, "guaranteed pure cultures of lactic acid bacteria," shall be recognized as standard.
2. The association shall have analyses made annually of two or more samples of cultures from each manufacturer.
3. The analyses shall be made by an expert station bacteriologist.
4. The results of the analyses shall be published through the press.

Minnesota dairymen are anxious to adopt a trade-mark, so that their butter, when it reaches the market, will be known as such.

Cheese-box Courtship

A London, Eng., despatch says: "A Canadian cheese manufacturer has given a South Shields tradesman a rather difficult task. On opening a cheese the latter found a small bottle, containing a communication addressed to his English friend, dated from Frankville, near Brockville, Canada. The communication requested him to pass the letter on to 'the prettiest girl in town,' with whom the writer invited correspondence. The merchant, however, was not prepared to carry out this commission."

POULTRY.

Square Dealing with Customers.

If there is one purchaser wholly at the mercy of the seller it is the man who buys eggs by correspondence. For this reason it is especially desirable that advertisers of this class of stock should be thoroughly honorable and prompt in their dealings. Unfortunately, the temptation to hold off customers whose orders cannot be filled promptly, often proves too strong, and the remittance is kept until the sender is exasperated, and, perhaps, entirely disappointed in his calculations. As a point of honor, it would seem to be only fair, when a person advertises to sell eggs, that orders which come in as a result of that advertisement, and which cannot be filled within a reasonable time, should be acknowledged immediately with an offer to refund the money at the customer's expense. A complaint bearing the stamp of genuineness has recently come to hand from a disappointed purchaser, whose faith in poultry advertisers has been somewhat shaken. The person alluded to states that she sent for a setting of a certain kind of eggs, and after waiting for some four weeks, received in lieu of the setting of thirteen ordered, five of that kind and three of another kind of fowl; that, of the five none proved fertile, and that the seller had demurred from refunding the money or sending another setting. While unwilling to impugn the honor of poultrymen in general, we are not disposed to ignore instances of this kind. The "Farmer's Advocate" is naturally anxious to conserve the interests of the breeders, but subscribers come before advertisers. We believe the majority of our advertisers mean to be square, and that, as a class, those using our columns are the cream of the poultry and live stock men, but instances such as the above are liable to occur in spite of every precaution on our part. Many cases of disappointment are, no doubt, due to no fault of the seller, and it is not surprising that they become slow to listen to complaints. At the same time, it behooves them to exercise every care that orders be filled to the satisfaction of their patrons. We believe it is better to lose an order rather than displease a customer. Fair dealing and businesslike methods pay the advertiser in the end, please the purchaser, and redound to the credit of the advertising medium.

A Case of Apoplexy.

Would like you to tell me what is wrong with my hens. Have found as many as four healthy-looking Barred Rock hens, fat and with combs red, lying dead under roost in the morning, although nothing wrong had been noticed at night. Others have one side of the head swollen, and are lame on one leg. Found one hen dead on the nest. Have been feeding principally on oats, with roots once a day, and, occasionally, mixed-grain chop in milk. They had all the fresh water they can drink, all the gravel they cared for, and oyster-shells occasionally. Have a good-sized house, with plenty of light. They appear to eat well, and have been laying well all winter.

J. M.

Under ordinary circumstances, I would have no hesitation in saying that the birds are dying of apoplexy, due to heavy feeding during the winter, and a lack of exercise. It is hard to understand birds becoming too fat when they are fed principally on oats, unless the chopped grain and milk are in excess. Where such breeds as Rocks and Wyandottes are kept, and the birds are over two years of age, or are even only one year old, they are inclined to become overfat. They will occasionally drop dead from the roost, and also die on the nest. The only thing that can be done is to increase the exercise and reduce the flesh. This can best be done by feeding the grain in deep litter, forcing the birds to take exercise, and so work off the superfluous flesh. A good dose of Epsom salts twice a week would do no harm, and would, perhaps, do as much good as anything that could be done. Give at the rate of about $\frac{1}{4}$ lb. for 50 birds. This, perhaps, may be a little too much, if given frequently. The best way of giving the salts would be to dissolve it in warm water, and then use this water to mix the chopped feed; possibly it would be well to give this wash at night, giving no other grain during the day.

Poultry Manager, O. A. C.

W. R. GRAHAM.

Much in Little.

I cannot praise your paper enough.
Elgin Co., Ont.

S. W. PLYBY.

An Experience With White Leghorns.

To the Editor "Farmer's Advocate":

I have been amused at the letters regarding the farmer's hen, and will give the experience obtained with a small flock of White Leghorns given to my children as a present by the owner of the farm I am manager of. On June 11th a Plymouth Rock hen with eleven newly-hatched chicks arrived at the house. They had the run of the grass fields and were fed regularly. In October the first egg was laid, and during the balance of the month they laid from one to two a day. During November there were more. In the last of October two of the four cockerels weighed $4\frac{1}{2}$ and $4\frac{1}{4}$ pounds; one pullet weighed $3\frac{1}{2}$ pounds. During the past exceptionally severe winter we have had as many as four eggs a day from the seven pullets, and last week there were 41 eggs laid in seven days. A dozen of these weighed $1\frac{1}{2}$ pounds. The results of the eleven Leghorns are proof that they can supply eggs; and at the same time, the cockerels not five months old weighed over 4 pounds each.

U. S.

Southern Illinois.

GARDEN AND ORCHARD.

Co-operation in the Fruit Business.

There is, perhaps, no other question occupying the attention of progressive fruit-growers so much as co-operation in the handling of fruit, and no enterprise deserves more careful consideration before undertaking it. Many a good co-operative association has been wrecked by people rushing wildly into it, imagining fortune is theirs, and then just as soon as some little difficulties appear rushing as wildly and rashly out of it.

Co-operation must be entered into with a steadfast determination to overcome obstacles and



D. Johnson, Forest, Ont.

to solve problems, which, when worked out, always leave us richer in experience and firmer on our foundation. We cannot expect to attain our ideal in one, two or even three seasons, but must be content to work patiently for years.

Co-operation should commence in the care of the orchard. We must produce good fruit before we can successfully co-operate in selling it. We find, as we travel throughout Western Ontario's fruit-growing district, that the people receive enthusiastically the idea of co-operative handling of fruit, but when we press on them the absolute necessity of growing it on scientific principles they seem to think it all so deeply enshrouded in insect and fungus mystery that they lose interest, and some take advantage of the occasion by having a good sleep. Although the possibilities of co-operation are great, in our own case spraying has done more than we expect co-operation ever to do. Many examples could be given, did space permit, to show the good results of spraying, but those which have been published in previous issues of the "Farmer's Advocate," will show the necessity of a co-operative association pressing spraying upon its members as an exceedingly profitable investment. Feeding the necessity of this, our association has practically a road to adopt a by-law forcing each member to spray at least twice before the blossoms open, and twice after they fall.

The possibilities of co-operation have been demonstrated by the success of the movement in California. Previous to that movement the fruit-growers were struggling individually one against the other, and all preyed upon by organized dealers, making rich at their expense. By co-operation they became their own masters, solved the

transportation question, worked out the distributing problem, and made themselves rich by honest, practical, united effort.

The handling of the Texas tomato crop is another example, the growers now being able to place their products in our markets, pay duty, and yet compete against us, while we, working as we have been doing, are unable to transport our plums, pears or tomatoes to Northwestern Canada, where thousands are hungering for the fruit that is spoiling by carloads in Ontario orchards. Two years ago thousands of bushels wasted in our district alone, not for the want of a market, but for the lack of a proper method of distributing it.

The Ontario Fruit-growers' Association must work out some system of handling such fruit for local associations. They have a right to Government aid in this matter, and should demand it. As a member of the Provincial Committee on Co-operation, I recently had the honor of an interview with the Minister of Agriculture and his managers on this matter, who showed a readiness to help the fruit-growers in every way they could, and were anxious to obtain information on the question.

It seems to me a central cold storage warehouse could be established in Toronto, to which each day's pack of tender fruits could be expressed through, and when a carload from the various associations was to hand, they could be loaded into a cold-storage car and rushed through to their destination. There are, no doubt, many difficulties in the way of such a movement, and if better proposals can be offered, the co-operative committee will only be too glad to receive them. Some system must be undertaken soon to meet the demands of fruit-growers, and the sooner the better. We cannot expect to be perfectly successful the first season, but we must experiment. I would suggest that the Government send a couple of practical men to California and Texas to study and report upon the co-operative systems there. The handling of the apples is comparatively easy, and I have no doubt but that in a year or two, with proper methods of packing, close Government inspection and proper advertising, buyers will come direct from Europe and the West, and pay cash down for our fruit, f. o. b. shipping point.

By co-operative spraying with power sprayers, co-operative buying of boxes and barrels, co-operative packing in central packing-houses, and co-operative selling of fruit, the fruit-grower can look forward to the day when the fruit-growing industry of Ontario will become as profitable and famous as the California business.

We must bury individual interests in the common good, work patiently, and, above all, refrain from quarrelling among ourselves. The manufacturers find it to their interests to stand together in spite of individual differences. Why not the fruit-growers?

D. JOHNSON,
President Forest Fruit-growers' and Forwarding Association.

The Coreless Apple.

Oh, he was a Bowery bootblack bold,
And his years they numbered nine;
Rough and unpolished was he, albeit,
He constantly aimed to shine.

As proud as a king on his box he sat,
Munching an apple red;
While the boys of his set looked wistfully on,
And "Give us a bite!" they said.

But the bootblack smiled a lordly smile;
"No free bites here!" he cried.
Then the boys they sadly walked away,
Save one who stood at his side.

"Bill, give us the core," he whispered low,
That bootblack smiled once more,
And a mischievous dimple grew in his cheek—
"There ain't goin' to be no core."

English Commission Men Frightened.

Reports of the co-operative movement among Canadian apple and other fruit growers, and assurances of aid by the Chief of the Canadian Fruit Division, in promoting the trade in Great Britain next season, having reached the Old Country, the commission men there have become greatly disturbed, and are filling the newspapers with alarming reports of a "Canadian Apple-growers' Combine." They resent the movement, as a blow at the established order of doing the business of fruit sale and distribution, and predict its failure. English fruit-growers, on the other hand, fear that it will develop a taste for Canadian apples in every town throughout the country, and seriously interfere with their business.

Likes the Knife.

I beg to acknowledge receipt of the premium knife, which I consider a very good one, and which works well.

FRED E. ALTON.

Halton Co., Ont.

Herb Vagaries.

By Anna L. Jack.

It is interesting to recall the vast importance that our grandmothers for several generations were accustomed to give to the herb garden, and the quaint sayings that surrounded these culinary adjuncts to the winter stores. Even though the good George Herbert shut them out from his kitchen as "vanities," they had a place in cottage or castle for their culture. Even in the monastery, the inmates were given a "knowledge of all salads and pot herbs whatsoever." Here were grown not only sage and thyme, mint and savory, parsley and fennel, coriander and dill, but many other herbs now fallen into disuse. First in the gardens of to-day for its fragrance and uses is the Labiate family, of which the mint and thyme and sage are best known for their volatile oils held in the foliage. Even in mid-winter one remembers the pleasant refreshment of brushing past a bed of either peppermint or spearmint. Of the latter Gerard wrote, "The smells rejoiceth the heart of man." It is said to be strengthening to the memory, and good for many maladies. But in these days it often goes by the name of fish mint, and is the basis of mint sauce. Sage is equally used, and possesses many virtues, besides being a staple in the kitchen. While savory was taken into Britain by the Romans and called "pudding grass," because it was used to stuff meats, and the compounds made of an animal's interior, as sausage meat, etc.

Thyme was believed to strengthen the lungs, and to avert melancholy. It is said to have made the bed in the stable at Bethlehem, but by what authority it is not easy to trace.

The old saying, "Sowing fennel is sowing sorrow," and also, "Where rosemary flourishes the lady rules," are well known, and Shakespeare recognized in many ways the uses and peculiarities of herbs. Even wormwood, that is still largely used, and taken in France under the name of absinthe, is commented on where he says:

"Thy sugared tongue, to bitter wormwood taste."

It is interesting to know that there is a species of this plant found in old-fashioned gardens, and known by the peculiar name of "old man," or "Southernwood"; its only use being for its aromatic and rather pungent fragrance. What could we do without the parsley? It was of parsley wreaths were twined for the victors in the Nemean games, but in some way it fell into disfavor, probably because it became the custom for the Greeks to strew parsley upon new-made graves. In these days it is chiefly used to garnish a dish, or give its pleasant flavor to soup.

Along the fence of a field, where fifty years ago was an old garden, there still grows clumps of caraway, and as its white clusters turn to seed, the neighbors come from far and near to gather it, so tenacious of life and persistent in growth is this plant. It is an ancient herb, and keeps, too, its Arabic name, "Al-Karweya," while it is much valued in oriental cookery, as well as by the Germans, who use it in certain kinds of bread. Apples and carraways made a distinct course in banquets of the middle ages, and Shakespeare has Justice Shallow say:

"We will eat a last year's pippin of my own grafting, with a dish of carraway."

It is not easy to tell in a short article of the many plants to which virtues have been ascribed. Even the spring anemone was considered by the Romans as a remedy against disease when gathered and worn—and a later writer says:

"The first spring-blown anemone, she in his doublet wove,
To keep him safe from pestilence, wherever he should rove."

And we all know the fragrant lavender, and the highly-scented musk. So the vagaries of herbs have been noted in all generations, from the time even of the titling of "mint, anise and cummin." And in each of these savory products of the soil there is doubtless a soothing and a healing virtue, but imperfectly understood or appreciated.

Judged on Its Merits.

Find enclosed my subscription for 1905. I consider the "Farmer's Advocate" the best paper in its line. I taught school for eight years, and I find your paper far superior in its line to all the best educational papers and magazines published in this country; therefore I say the "Farmer's Advocate" is the best paper, in its line, viz., the line of agriculture. Wishing you the best of success, and asking you to continue my paper.
HENRY J. MANSZ.
Oxford Co., Ont.

Popular in New Ontario.

You will find enclosed \$1.50 to extend my subscription to your valuable paper. The "Farmer's Advocate" is highly appreciated up here in the District of Temiscaming. Everybody who reads it here declares it to be the best farmer's weekly that he has read.
N. W. EDWARDS.

Home Culture of Strawberries.

Almost everyone likes strawberries, but it is remarkable to note how very few persons favorably situated, enjoy the luxury of a strawberry bed of their own. Some have tried the experiment, but possessing no common-sense knowledge of the undertaking, have lost patience over poor results, and thrown up the project in disgust. Like "Barkis," they are "willin'," but haven't the faintest idea how to go to work about it. It is neither an intricate nor costly enterprise.

If possible, select a spot for your prospective strawberry bed the previous fall. The richer it is to begin with, the less one's subsequent labor. The ground should be spaded and spread with a liberal layer of barnyard fertilizer; then re-spaded and raked smooth, for winter snows to exercise their beneficial action.



Strawberry Blossoms.—1, Perfect; 2, Imperfect.

In May, when warm, spring rains have mellowed the ground, set out your plants, previously ordered from some reliable seedsman. One hundred plants constitute a fair-sized strawberry bed, at an average cost of a dollar and a half.

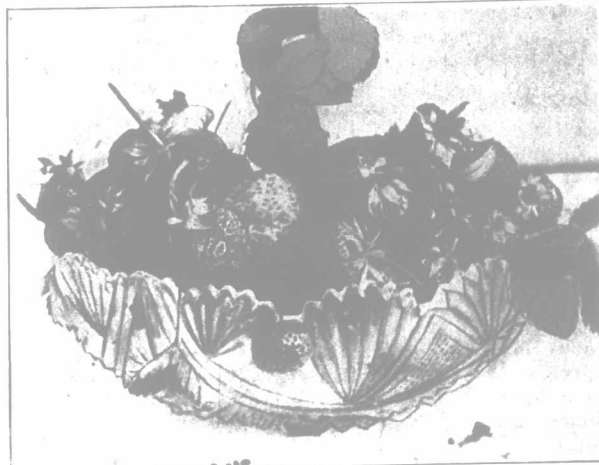
Now occurs a slight divergence of ways and methods, according as one wishes—a "matted" strawberry bed, or one where the plants are hilled in distinct rows. For general purposes, the former method is largely approved. The "hilled" beds may present a more uniform and neat appearance, but each individual plant



Illustrating Proper Method of Setting Strawberry Plants.—No. 1, Roots Not Spread Out; No. 2, Planted too Shallow; No. 3, Properly Set.

requires mulching, else the berries will be gritty; the runners demand constant cutting, and for some unaccountable reason, grubs make more frequent and deadly attacks on the "hilled" beds than on the "matted ones." All things considered, a greater yield, with less attendant labor, accrues from the "matted" bed.

In this case, the plants should be set about a foot apart, the roots well straightened and spread in the hole; then filled in with earth, watered thoroughly, and the surface covered with well-rotted manure. Great



Fresh-picked and Inviting.

care should be taken that the crown of the plant is not so high that the roots are exposed to the air, nor yet so deeply sunk that it is covered with earth; either condition is deleterious.

During the first summer, some of the more ambitious plants will attempt to blossom weakly. It is best not to allow this. Nip off all aspiring buds, that the whole strength may be reserved for the great bearing effort of the following year.

Before the first snowfall cover the bed with a blanket of fir boughs. In the spring weed carefully, and spread with a dressing of hardwood ashes, followed in about two weeks by a light application of phosphate.

Plants that are not too close together, and well weeded, sometimes bear the third year, but it is better economy to set out a fresh bed with the young runners, which have rooted themselves on all sides of the parent plants. After the start, by keeping a bed ahead, so to speak, one can enjoy strawberries in luxuriance each succeeding summer.

Opposite the strawberry descriptions in the catalogues, often appears the letter "(P)"—pistillate.

Sometimes a variety is designated by "(B)"—bi-sexual. This plays an important part in the proper selection of plants and their consequent bearing results.

Bi-sexual or perfect varieties (the names are synonymous) produce flowers which contain both stamens and pistils. They are self-fertilizing, and can bear independently of the pistillate varieties, though a greater yield is forthcoming where every third row contains pistillate plants.

Pistillate, or imperfect plants, produce flowers which contain pistils only. They are lavish bearers when properly pollinized by perfect varieties, but when planted by themselves they produce literally "nothing but leaves."

A friend of the writer, ignorant of this important detail, bought a quantity of plants of Haverland, a pistillate variety, which is prolific and satisfactory under proper conditions. The soil was rich; the plants grew well, and blossomed profusely. They continued to grow till they stood knee-high, but not a berry crowned their maturity.

Subsequently, this same gentleman, having discovered his mistake, again had a bed of Haverland strawberries; this time in conjunction with some staminate plants. Again, the soil was rich, the season favorable in every particular. From about 1-16 of an acre of ground he picked, during the bearing year, 16 or 12 bushels of strawberries, while half as many more rotted on the vines, despite all efforts to keep pace with the supply. Picking grew from a wonder, a delight, to a tantalization.

The different varieties of strawberries possess certain distinctive features in flavor, color and shape. Some are brightest vermilion; others rich wine-red, almost garnet; others, still, are pale flesh-pink, so faintly washed with red that they present a somewhat bleached appearance, which belies their delicious flavor.

Among early varieties, the Haverland proves very satisfactory in combination with such staminate varieties as the Wilson and Downing, which bloom at the same time, as it is important they should.

The Wilson is a firm berry, rich and dark in color, and pleasantly tart.

The Downing, though not large, is very sweet and pleasant to the taste. Its chief value lies in its earliness and fine flavor.

The Sharpless attains an enormous size, but is not very firm or regular in shape, being better for immediate use than for canning purposes.

Howard's No. 41 is a satisfactory late variety, medium color, good size and regular shape. It is a pretty berry, with bright, straw-colored seeds showing conspicuously all over it.

Bubach's No. 5, Nick Ohmer, Marshall and Brandywine are also familiar names on the strawberry grower's list of favorites. It must be remembered that the growth of strawberries differs somewhat on different soil.

To the general run of people, "strawberries" signifies merely the flaccid imitations, slowly sagging in their boxes on market garden carts, or along city thoroughfares; a "far cry" from the strawberries which gleam sparkling red beneath their covert of leaves on one's own strawberry bed. Something subtly delicious and indefinable, lurking in the flavor of those freshly-picked berries, disappears, never to return, after they have been shipped or remain standing for a number of hours.

It is a luxury to be able to pick a handful, a bowlful or ten quarts of mellow, sun-warmed strawberries when and as you wish. It is no less a luxury to be able to give away luscious samples to one's friends.
Brome Co., Que. M. SPAFFORD.

The Fruit Trade with Ontario.

Last summer, it will be remembered, Prof. Reynolds, of the Ontario Agricultural College, experimented with two carloads of tender fruits, to determine the nature of the objections to shipping larger consignments of Ontario fruit to the Northwest. At the time of the experiment the "Farmer's Advocate" gave a description of the experiment and quoted the prices realized, which, by the way, were quite satisfactory, both to the Ontario shipper and the Western buyer. Recently, however, Prof. Reynolds has issued a bulletin based upon his experiment, in which he cites the objections of shipping fruit to the West, and shows that all may be obviated or removed. With fruit properly handled (the art of doing which the growers are rapidly learning), careful icing of refrigerator cars, and a reasonably fast freight service, the Professor asserts that peaches, pears, grapes, plums, berries, etc., can be landed in Winnipeg in first-class condition in from six to seven days from date of picking, and that these fruits when kept at refrigerator temperatures will remain fresh for from sixteen to thirty-six days. As in so many other things, the freight service is the most serious interference with the shipment of fruits from the East, but with a railway commission, having the interests of both the producer and consumer at heart, this difficulty should easily be remedied, providing sufficient pressure is brought to bear by all parties interested in the trade. The Ontario Fruit-growers' Association have pressed their case before the commission, and it is hoped that the promised redress will be operative before the 1905 crop is ready to ship.

To Prevent Potato Scab.

An Albertan reader asks how to treat potatoes to prevent scab, and in reply we give treatment recommended by Prof. Samuel B. Green, of the Horticultural Division of the Minnesota Experiment Station (see bulletin No. 87). Corrosive sublimate was formerly advised, but formalin, used as below, is now recommended as equally efficacious and safer to use. Corrosive sublimate is a deadly poison. The expense of formalin is slightly greater, but it does not amount to much in either case, since one pound of formalin, costing not more than fifty cents, will make thirty gallons of solution, and is enough to treat fifty bushels of potatoes.

This material should be mixed with water at the rate of eight ounces (one-half pint) of commercial formalin to fifteen gallons of water. The potatoes should be soaked two hours in it. If this method is used, the seed should be planted within two or three days after treatment. This material gives equally as good results as corrosive sublimate. It is slightly more expensive, but the expense is light in any case. It has, however, great advantages over the latter, in that it is not so dangerous, and being a liquid is easily diluted for use, and may be placed in any kind of a receptacle. This material does not in any way injure the tubers or make them dangerously poisonous. If the solution stands a long time it will probably lose strength.

If the tubers are exposed to full sunlight for several weeks before planting the scab germs will largely be destroyed. It would be a good plan to turn such potatoes occasionally, in order to expose them fully to the light.

As the result of following out this method of preventing scab on potatoes at the Minn. Experiment Station, for more than five years they have grown potato crops each year that have been nearly free from this disease, and they believe that the farmers cannot afford to neglect this simple and inexpensive method of treatment.

NEWS OF THE DAY.

Canadian.

The C.P.R. will build important railway extensions in the West in the near future.

Nearly 1,000 more Ontario emigrants left the Union Station, Toronto, for the West on April 4th.

The turbine liner *Virginian*, a sister ship to the *Victorian*, is on her way to Canada with 1,500 British immigrants.

Mr. Frank Oliver, M. P. for Edmonton, has been sworn in as Minister of the Interior, to succeed Hon. Clifford Sifton.

A serious epidemic of dysentery has broken out in Hull, Que., where deaths have been occurring at the rate of nine daily.

Muskoka has asked the Ontario Government for a grant of \$25,000, to aid the Free Hospital for consumptives. The request has been given favorable consideration.

The first through train on the Canadian Northern to Saskatchewan Valley left Winnipeg on April 3rd. Sales of farm lands in the Far West are reported as much more active than last spring.

All the vessels of the Canada Pacific Atlantic fleet, which are not already equipped with cold-storage appliances, are to be fitted out with them at once. This step will be of enormous benefit to Canadian shippers.

The report of the Provincial Railway Taxation Commission was laid on the table of the House at Toronto on April 7th. The report favors taxation of the Ontario railways, on the basis of three per cent. on gross earnings.

The new turbine Allan Liner, *Victorian*, arrived in Halifax on the first of April. The turbine worked splendidly during the voyage across the Atlantic, and the entire absence of vibration was much commended by the passengers.

An influential deputation from Prince Edward Island has interviewed the Government re the matter of keeping communication open to the Island in winter. They ask for a powerful ice-breaker immediately, and, as soon as possible, a tunnel between Cape Tormentine and Cape Traverse.

While plowing over a field, near Windsor, Ont., in which excavations for oil had formerly been made, a horse belonging to Mr. William Angus suddenly sank in the earth. When dug out it was found that it had fallen into a regular oil gusher. Mr. Angus will at once begin drilling for more wells.

British and Foreign.

Seventy girls in one of the Polish cotton mills have been poisoned.

It is proposed to introduce jiu-jitsu as a drill for the U. S. army.

A serious revolution against Turkish suzerainty has broken out on the island of Crete.

Fifty miners were entombed by an explosion of gas in a mine at Zelgler, Ill., on April 3rd.

A stranger, disguised as a Cossack, was arrested recently in the Czar's palace, Tsarkoe-Selo. When searched two bombs were found on him.

China is organizing armies, and arming them with the most modern weapons. Thousands of Mauser and Mannlicher rifles are being supplied to the troops.

An immense canal, reaching from the Pacific Ocean to Lewiston, Idaho, is to be constructed in the near future, and will be used chiefly for the transportation of wheat.

A violent earthquake in British India has caused great loss of life. The reports are not all in yet from the various districts affected, but it is feared that the death roll will extend into the thousands.

There is much suffering among the Chinese in the vicinity of Mukden, where 100,000 people have been left homeless and destitute as a result of the recent fighting. Of these, 60,000 are being fed and housed in Mukden by the Chinese Government.

Admiral Rojestvensky, who is now on his way toward Vladivostok, is said to be making a detour towards the cooler waters of the Southern Seas, in order to rid his vessels of the barnacles which fastened on them during the long stay at Madagascar, and were proving a serious hindrance to speedy navigation.

The chief of police at Lodz, Poland, has been killed by a bomb, and in further conflicts between the troops and Jewish Socialists at Warsaw, four men have been killed and forty wounded. In Northeastern Poland the peasants are still on the march, cutting telegraph wires, pillaging, and demolishing the houses of land-owners in their way.

Once more the scene of interest in the Far East has shifted from the land to the sea. Upon April 8th the Orient was thrown into a flutter of excitement by the news that 21 vessels of Admiral Rojestvensky's Pacific squadron had been sighted, steaming slowly past Singapore northward into the China Sea. The vessels were burning soft coal, and the thick columns of smoke were visible for miles. The news has been received with much rejoicing by the Russians, who feared that the squadron might encounter the Japanese somewhere among the perilous passages of the East Indian Islands. Whether Rojestvensky will sail directly northward, or loiter somewhere in the China Sea to await the arrival of Nebogatoff's squadron remains to be seen. The actions of the Vladivostok squadron, which is still in the harbor, will also be watched with keen interest, the probabilities being that upon the first intimation of the near approach of Rojestvensky's vessels, it will sally out to harass Togo's fleet in the rear. However that may be, within the next fortnight there is likely to be fought the fiercest sea battle since that of Trafalgar.

The recent visit of the German Emperor to Tangier, which is held to have an important political significance, is arousing much interest throughout Europe. It appears that the German Government has not been satisfied with that part of the Anglo-French Treaty which allows France certain privileges in Morocco in return for certain other privileges to Britain in Egypt. In order to secure a better safeguard for her Algerian frontier, France has been endeavoring to aid the Sultan of Morocco by strengthening his departments of war and finance, advances which have been reluctantly accepted by the Sultan, and totally refused by the tribal chiefs, who profess very little allegiance. Of late Germany has stepped in and begun assuring Morocco that her authority will be exerted to maintain the independence of the State, an insinuation, of course, that Morocco is menaced by the Anglo-French Treaty. The speech of the German Emperor at Tangier, in which he asserted the right of his country to commercial privileges equal to those of other nations, is now looked upon as a further step toward hindering French influence with the Sultan, and further complications are feared. Should serious trouble arise, Spain and Italy will both unite with France to thwart Germany in an evident attempt to obtain a foothold on the Mediterranean.

It Helps.

Thos. Baxter, Sandfield, Ont., says: I am very much pleased with the "Farmer's Advocate and Home Magazine," especially for the useful helps which it gives me. I will try to get as many new subscribers for you as I can. Wishing the "Farmer's Advocate" the greatest success.

THE FARM BULLETIN

Eastern Ontario and Quebec maple sugar and syrup makers propose organizing and adopting a brand.

The Department of Agriculture proposes to establish near Toronto a nursery for seedlings, in connection with the scheme for farm reforestry.

"You have the best paper (meaning the 'Farmer's Advocate and Home Magazine') in Canada or anywhere else." So writes Wm. Hastie, of Huron Co., Ont.

It is announced that M. D. Wisdom, of Portland, Ore., has been appointed Chief of the Live-stock Department of the Lewis and Clark Exhibition, to be held at Portland during the coming summer.

Mr. F. G. Bergen, of Ormond, Ont., who took a course at the Ontario Agricultural College, specializing in poultry-keeping, has been appointed manager of a large poultry plant, owned by L. F. Swift, President of the Union Stock-yards, Chicago.

Prof. W. J. Kennedy, of the Iowa Agricultural College, son of Mr. A. Kennedy, of Vernon, Ont., has returned from his British and European tour, as a representative of the U. S. Dept. of Agriculture. After making his official report he will resume his college work.

Newly arrived immigrants from the Old Country have been simply besieged at the Union Station, Toronto, by farmers seeking farm help, the crush being on some occasions so great that policemen were kept busy clearing a passage in the corridor. At the Immigration Office over one thousand applications for help from farmers living in all parts of Ontario are on file.

The Executive Committee of the Niagara Fruit-growers' Association has appointed a local committee to assist Prof. Lochhead, of the Ontario Agricultural College, in carrying out experimental work in that locality in connection with San Jose scale and other pests. Mr. A. H. Pettit urged the establishment of a fruit experiment farm, as referred to in last week's "Farmer's Advocate."

Jas. Oastler, B.S.A. (Tor.), well known to Manitoba stock-breeders as one of the men who helped turn the show herds of Hon. Thos. Greenway out for inspection, and later at the Northern Minnesota Experiment Station at Crookston, Minn., has been appointed manager of Sir Wm. Van Horne's farm at St. Andrews, New Brunswick. Mr. Oastler, it will be remembered, won a \$100 prize for an essay on pig breeding and management.

Special trains carrying samples of good grain of all kinds are making the rounds of the Northwestern States. A number of instructors from the agricultural colleges, and from large grain firms that have made the culture of good seed a specialty, show farmers through the trains, and give all necessary explanations. A marked increase in the quantity and quality of the grain grown in these districts is expected as a result of the experiment.

Refining Trinidad Sugar.—Mr. D. A. Gordon, M. P. for East Kent, is about to try an important experiment in his large beet-sugar plant at Wallaceburg, by importing Trinidad raw sugar to be refined during the season when sugar beets are not obtainable. As the latter can only be had for a few months in the fall and early winter, the project to use the mill during the rest of the year is of the greatest importance from a business and economic standpoint.—[Globe.]

Annual Meeting Toronto Driving Club

The annual meeting of the Toronto Driving Club was held at The Repository on Wednesday, April 5th. Ald. S. McBride occupied the president's chair, and there was a splendid attendance of members. The reports of the Secretary and Treasurer were both highly satisfactory.

After the election of officers a presentation of a magnificent clock was made to the popular president of the club, Ald. S. McBride. At the conclusion of this presentation the secretary, Mr. H. G. Wade, who is leaving in a few weeks to reside permanently in Ottawa, was presented by the members of the club with a gold watch and chain, suitably engraved. Suitable replies were made by both gentlemen.

The election of officers resulted as follows: President, Ald. S. McBride; Vice-President, C. A. Burns; Hon. Treasurer, J. H. Lock; committee, H. Snow, R. J. McBride, Mr. Lockrie, C. Verral, Frank Rogers, James McFarren; Auditors, Ald. John Dunn and J. Holman; Representative to Industrial Exhibition Board, Ald. S. McBride.

A hearty vote of thanks was tendered to Burns & Sheppard, for the hospitality they have shown in allowing the club the use of their premises to hold the club's meetings.

Good Common Whitewash.

To make this whitewash suitable for all disinfecting, purifying and sweetening, especially for outhouses and cellars, take three gallons of hot water, handful each of sifted wood ashes and clean barrel salt, with a pint of soft soap well stirred in, and add slacked lime until thick as good buttermilk; applying plentifully with a brush. For inside walls, take one bushel of unslacked lime, three pounds of sugar, five pounds of salt; slack the lime with cold water, add the salt and sugar, strain through a sieve, and reduce to the proper consistency with cold water, applying with a brush. This is recommended for brick or rough board walls.

Ontario Veterinary College Graduates.

On March 30th, 92 were added to the 2,767 graduates who had previously passed from the Ontario Veterinary College, Toronto. The gold medal given by the Ontario Veterinary Association, for having passed the best general examination, was awarded to Wm. Lenton, of Wawanese, Man. The Principal, Andrew Smith, F. R. C. V. S., presided, and on the platform with him were Rev. Dr. Armstrong Black; Professor Harrison, Guelph; Col. Lloyd, Newmarket; Dr. Cowan, Galt; Dr. King Smith, and Dr. J. T. Duncan.

Prof. Harrison, of Guelph, advised a closer study than was usually given by veterinary students to pathology. Veterinarians took a too narrow view of their profession, and he suggested that they should study sanitation, physiology, the hygiene of milk, and should give more attention to the inspection of meat, a line in which Europe was far ahead of Canada. By doing these things they would help themselves and elevate their profession.

The list of graduates was as follows: F. J. Anderson, Thompson, North Dakota, U.S.; Francis W. Anderson, Highland, New Jersey, U.S.; H. Howard Bair, Belvidere, New Jersey, U.S.; W. E. Baker, Demorestville, Ont.; Clyde F. Beamer, West Union, Iowa, U.S.; Geo. W. Benjamin, Rushford, New York, U.S.; James W. Broadfoot, Russell, Man; A. H. Brother, Toronto Junction, Ont.; E. A. B. Bruce, Cheltenham, England; Frank A. Bunnell, Waverly, N.Y., U.S.; Reuben A. Byer, Markham, Ont.; Edward Bailey, Uxbridge, Ont.; Geo. A. Campbell, Mohawk, Ont.; Ralph W. Carmack, Dana, Ind., U.S.; W. F. Carr, Buffalo, N.Y., U.S.; Frederick Chapple, Barline, Ont.; Ernest E. Chase, La Farge, Wis., U.S.; Geo. L. Clark, Columbia City, Ind., U.S.; A. R. Crooks, Scotland, Ont.; Henry A. Coxe, Milton, Ont.; Benj. Matt. Deavenport, Starkville, Miss., U.S.; John A. De Cow, Middlemiss, Ont.; George H. Dedolph, Tigerton, Wis., U.S.; J. D. Delaney, Independence, Iowa, U.S.; Fred H. Dettman, Pigua, Ohio, U.S.; Thomas Drown, Mitchell, Ont.; Cyren B. Estey, St. Cloud, Minn., U.S.; John F. Fulcher, Forest, Ont.; W. H. Galbraith, Brampton, Ont.; H. J. Gordon, Teeswater, Ont.; Nathan G. Gray, Ledyard, Conn., U.S.; Edward S. Greenwood, Douglas, Man; Archie L. Haggerty, West Winfield, N.Y., U.S.; Henry J. Henrickson, Syracuse, N.Y., U.S.; William Hilton, Winnipeg, Man; Robt. Lee Humphrey, Blument, Va., U.S.; Mell Frazer Jackson, Auburn, Ala., U.S.; Conrad J. Johannes, New Dundee, Ont.; Micajah J. Jones, jun., Blanchester, Ohio, U.S.; A. Star. Keeler, Ottawa, Ill., U.S.; Harmon R. Kidder, North Warren, Pa., U.S.; William Kime, Chatham, Ont.; Anson Knight, Sardis, B.C.; J. Franklin Lavery, Sunderland, Ont.; Andrew N. Lawton, St. Thomas, Ont.; Wilfrid Lenton, Wawanese, Man; Albert M. Lloyd, Keswick, Ont.; F. H. S. Lowrey, Picton, Ont.; James D. McCarten, South Bend, Ind., U.S.; Harry C. McCartney, Ellenville, N.Y., U.S.; Robert A. McCartney, Ellenville, N.Y., U.S.; James A. McCreight, Brandon, Man; James T. McFadden, Woonsocket, R.I., U.S.; Donald W. McLeish, Parkhill, Ont.; F. A. McNally, Toronto, Ont.; J. C. McNeill, Walkerton, Ont.; George Ulius Marchand, Mt. Eaton, Ohio, U.S.; C. A. Matthew, Coalport, Pa., U.S.; Wm. A. Meiser, Meiserville, Pa., U.S.; James T. Molison, Natick, Mass., U.S.; Fred J. Montague, Caro, Mich., U.S.; C. F. Moore, Lumsden, N.-W. T.; David B. Morgan, Fayetteville, Ark., U.S.; Harry E. Myers, Sycamore, Ohio, U.S.; G. Wyndham Newton, Cheltenham, England; N. Peter Olsen, London Junction, Ont.; David R. Philip, Rochester, Montana, U.S.; Walter W. Pugh, Toronto, Ont.; David H. Pyke, Elmwood, Ont.; H. H. Ross, Burford, Ont.; Robert K. Russell, Toronto, Ont.; Frank A. Scott, Traverse City, Mich., U.S.; W. A. Scott, Rockford, Nicola Valley, B.C.; Harry B. Sears, Pittsfield, Mass., U.S.; Charles H. Solt, Arlington, Ohio, U.S.; O. L. Spidell, Wilmot, Ohio, U.S.; Chas. B. Stirling, Mt. Pleasant, Mich., U.S.; Oliver C. Stoner, Fernhill, Ont.; Cecil L. Thompson, Newton, Kansas, U.S.; Henry N. Thompson, Boisveain, Man; John Thompson, Strathroy, Ont.; Milton R. Thyng, Morton, N.Y., U.S.; A. La Verne Tiffany, Dimock, Pa., U.S.; Oscar H. Titterud, Constance, Minn., U.S.; Juan C. Tornguist, Buenos Ayres, Argentina; Geo. W. Valentine, Waterville, N.Y., U.S.; John C. Wainright, Strathcona, N.-W. T.; Percy K. Walter, Pincher Creek, Alta., N.-W. T.; Carr W. Watson, Hapswell, Maine, U.S.

Put Neck Back into Joint.

A remarkable case of veterinary practice was reported from Toronto recently, in which Dr. W. Mole, V. S., whom our readers will remember as a former veterinary adviser of the "Farmer's Advocate," replaced a dislocated neck in a horse that had, in throwing himself, put it out of joint by a wrench of the halter. Treatment consisted in dealing the distension a heavy blow; then as the horse collapsed men holding the halter jerked it sharply, the vertebrae slipping back with a sharp click. After lying stunned for three hours the horse got up and began to eat oats. Dr. Mole feels assured the recovery, which seems complete, was unique in the annals of veterinary practice. Death usually resulted before operation, due to the rupture of the numi-gastric nerve, causing suffocation. Should an animal survive replacement of the vertebrae, death had followed within a week or so.

I received my premiums, the reading glass and harmonica, and am much pleased with them. I think they are all right, and will try to get some more new subscribers.
LLOYD SMITH.
Elgin Co., Ont.

The National Record-keeper.

The breeders of pure-bred live stock in Canada, as well as our readers generally, will be pleased to view in this issue of the "Farmer's Advocate" the portrait of Mr. William Austin Clemons, who a couple of months ago, under authority of the Dominion Minister of Agriculture, Hon. Mr. Fisher, took charge of the preliminary work in connection with the supervision of the proposed national records. As announced in a recent issue, the appointment is one that will command the confidence of the breeding fraternity. The Executive Committee of the Shorthorn Breeders' Association a few days ago placed themselves on record, endorsing Mr. Clemons' appointment as Registrar-General. Left unhampered by political or other improper influences, his record for staunch integrity and independence of character will stand him in good stead, and be a guarantee to the public of the character of the pure-bred live-stock records under his charge, and bearing the national imprimatur of Canada.

Mr. Clemons was born October 7th, 1870, in the township of South Dumfries, County of Brant, Ont., and is a son of Mr. G. W. Clemons, the well-known breeder of Holstein-Friesian cattle, and Secretary-Treasurer of the Association for that breed. He was educated at the local rural school, the St. George public school, and the Hamilton Collegiate Institute, taking his second-class teacher's certificate at the age of fifteen. After leaving school he returned to his father's



Mr. W. A. Clemons.

farm, and assisted in establishing and building up the Maple Hill herd of Holsteins. For six years, from 1894 to 1900, he had charge of the office of the Holstein-Friesian Association, thus acquiring familiarity with pedigrees and experience in keeping live-stock records. In 1900 he went to Ottawa, as Secretary to the Live-stock Commissioner, and three years later he was made publication clerk for the Department of Agriculture, under Prof. Robertson, a position he has occupied up to the present time, demonstrating himself to be a most careful and competent officer. He married in 1903, Helen Jean, daughter of Mr. David Nairn, Principal of Dickson School, Galt.

Best Investment.

As my subscription to your valuable paper has expired, I enclose \$1.50 for renewal. I consider it the best spent dollar and a half that I can invest in any paper, as I would not be without the "Farmer's Advocate" for twice the money. I have to acknowledge, on behalf of my daughter, the receipt of premium bracelet, which is very fine indeed. She is very proud of it. Wishing you every success.
Lanark Co., Ont. JAMES C. CURRIE.

Even in England.

Enclosed please find remittance for two renewals for 1905, N. Tolchard, England, and my own as usual. Everybody looks for the "Farmer's Advocate," even in England.
Bruce Co. GEO. TOLCHARD.

Re the Taxation of Farm Woodlands.

To the Editor "Farmer's Advocate":

Sir,—I was glad to note your editorial in your issue of March 23rd, advocating a law empowering municipalities to exempt from taxation such woodlands as are properly cared for. In view of the great value of a wood-lot as a part of any farm, and of the rapidity with which our farm woodlands are disappearing, I feel that there should be no two opinions as to the wisdom of this policy.

I note in the report of the Director of Forestry for 1901, that the farm woodland area of the County of Middlesex and the six adjoining counties, decreased from about 940,000 acres in 1896 to about 640,000 acres in 1901, a decrease of 32 per cent. in five years. After making ample allowance for errors by township assessors, the falling off is to be regarded as little less than astounding. The average per cent. of woodlands has fallen in these seven counties from 22% of the total area to 15%, or somewhat over 1% per year. That the area has been much further reduced since 1901 is certain.

The hope of arresting this deforestation lies, it seems to me, in three directions: (1) In an appreciation on the part of the farmer that it is worth while to care for his woodlands—I mean worth while as a matter of dollars and cents. (2) In the diffusion of knowledge as to the HOW of the matter; how to improve the wood-lot by the use of the axe; how to bring about favorable conditions for rapid growth and good natural reproduction; how to plant, and how to get good planting stock, and a dozen other hows; and (3) by judicious and equitable taxation.

It is undoubtedly true of several of the neighboring States—particularly the great forest States of Michigan, Wisconsin, and Minnesota—that unwise taxation has been at least a close second to fire as a destroyer of the forest. They have abundantly proven that by means of an unjust tax law, legislatures may devastate forest lands in a wholesale manner. It is equally true that by judicious tax exemption they may do much to stimulate the cause of forest preservation and extension.

Such exemption should, in my opinion, be limited to wood-lots reaching a definite standard of promise. This standard should be within the reach of all intent on improving their woodlands. The exemption should be continued only so long as proper care is taken of the exempted property; and only a reasonable proportion of any property should be exempted.

JUDSON F. CLARK,
Ontario Provincial Forester.

National Live-stock Convention.

On Thursday, April 20th, delegates from the various live-stock associations will meet in convention at the Imperial Building, 138 Queen St., Ottawa, to decide upon the constitution and rules to govern the National Association of Canadian Stock-breeders, and to elect officers for that body. The committees appointed by the Clydesdale, Hackney, Shire, Sheep, Swine, Shorthorn, Aberdeen-Angus, Hereford, Ayrshire and Jersey Associations, to complete final arrangements in connection with the nationalization of the live-stock records, will meet at the same place on Wednesday, April 19th. Both meetings will open at 10 a. m., and continue throughout the day and evening.
F. W. HODSON,
Live-stock Commissioner.

[Note.—We trust that, in response to the call of the Live-stock Commissioner for the second national convention, there will be a large gathering of stockmen at Ottawa on April 19th and 20th, in order that every step in the nationalization scheme may be fully and fairly considered by those most directly interested, and in order that every necessary precaution be taken to conserve the rights of the breed societies to retain control of their respective records, registrars and funds. The importance of this movement to breeders, and also from a national and international point of view, can hardly be overestimated.—Editor.]

A Song of Seed Time.

By Frank H. Sweet.

"Whoa! haw!" cheerly
Over the field they cry,
Glad with yielding of the soil
And brightness of the sky;
Farmer and boy and hired man,
Harrow and horse and plow.
"Whoa! haw!" hear the cry;
"Steady, I tell ye now!"
Over the field in straggling line,
Ever and on they go,
And watchful on his lofty pine
Sitteth the thoughtful crow.
"Whoa! haw!" merrily,
Downward the western sun,
And to and from and back and forth
Till their work is done;
Farmer and boy and hired man,
Harrow and horse and plow,
Then through the bars to the barnyard,
To chores and waiting now;
Into the barn in straggling line,
Feeding out stalks and hay,
And from his notch on the lofty pine
Flieth the crow away.

—[The Independent.

MARKETS.

Toronto.

LIVE STOCK.

Export Cattle—Choice are quoted at \$4.75 to \$5.25, good to medium at \$4.50 to \$4.75, others at \$4.25 to \$4.40, and bulls at \$4 to \$4.25.

Butcher Cattle—Good to choice, \$4.60 to \$4.80; fair to good, \$4.10 to \$4.50; mixed lots, medium, \$3.25 to \$3.90, and common at \$2.50 to \$3. Cows sell at \$2.50 to \$4, and bulls at \$2 to \$3.

Stockers and Feeders—Short-keep feeders are quoted at \$4.65 to \$5, common to fair at \$3.75 to \$4.50, and stockers at \$1.50 to \$3.40, with \$1.75 to \$2.50 for bulls.

Milch Cows—\$30 to \$65 each.

Calves—3½c. to 6c. per pound, and \$2 to \$10 each.

Sheep and Lambs—Export sheep are quoted at \$3.75 to \$5.50, mixed at \$4 to \$5.25, grain-fed lambs at \$7 to \$7.50, barnyards at \$5.50 to \$6.50, and springs at \$3.50 to \$6.50.

Hogs—\$6.25 per cwt. for choice light weights, and \$6 for heavies.

GRAIN, FLOUR AND FEEDS.

Wheat—Ontario—Market dull, millers holding fair supplies, and with flour for sale, not being active buyers. No. 2 red and white, \$1.03 to \$1.04; spring, 96c. to 97c., and goose, 89c. to 90c. Manitoba easier; for delivery at lake ports on the opening of navigation quotations are: No. 1 northern, 99½c.; No. 2, 93c.; No. 3, 90c.

Flour—Dull, with millers looking for buyers; 90 per cent. patents, \$4.40 to \$4.50, buyers' sacks, east and west; 15c. to 20c. higher for choice. Manitoba, \$5.50 to \$5.70 for first patents, \$5.10 to \$5.40 for second patents, and \$5 to \$5.80 for bakers'.

Millfeed—Scarce; \$16.50 for bran in bulk, \$18.50 for shorts, for car lots, east and west; Manitoba, \$21 for shorts, and \$18 for bran.

Barley—46c. to 47c. for No. 2, 44c. to 45c. for No. 3 extra, and 43c. for No. 3 malting, outside, Toronto freights.

Corn—Canadian, firm, at 47c. to 48c. for yellow, and 46c. to 47c. for mixed, f.o.b., Chatham freights. American continues firm, an advance being expected; No. 3 yellow, 55c. to 55½c.; mixed, 54½c. to 55c., on track, Toronto.

Oats—40c. to 41c. for No. 2, west, 42c., east.

Peas—68c. to 69c. for No. 2, west and east, and 70c. for milling.

Buckwheat—59c. to 60c., east and west.

COUNTRY PRODUCE.

Butter—

Creamery, prints 23c. to 25c.
do, solids 22c. to 23c.

Dairy tubs, medium 16c. to 17c.
do, inferior 14c. to 15c.

Dairy, lb. rolls, good to choice 21c. to 22c.
do, large rolls 19c. to 20c.
do, medium 17c. to 18c.

Cheese—Job lots are quoted at 12c. for large, and 12½c. for twins.

Potatoes—Ontario are quoted at 60c. on track, and 65c. to 70c., out of store; eastern, 60c. to 65c., on track, and 70c. to 75c., out of store.

Beans—Hand-picked, \$1.75 to \$1.80; prime, \$1.65 to \$1.70; and undergrades, \$1.25 to \$1.50.

Hops—Steady, at 32c. for Canada crop.

Maple Syrup—Prices are steady, at \$1 per imperial gallon.

Baled Hay—Car lots on track are quoted, unchanged, at \$8 per ton for No. 1 timothy, and \$7 for mixed or clover.

Buffalo.

Hogs—Heavy and mixed, \$6 to \$6.10; Yorkers, \$5.90 to \$6.10; pigs, \$5.80 to \$5.85; roughs, \$5 to \$5.25; stags, \$3.25 to \$4.

Sheep and Lambs—Active; lambs, \$6.50 to \$8.20; a few \$8.10; yearlings, \$7 to \$7.25; wethers, \$6 to \$6.25; ewes, \$5.75 to \$6; sheep, mixed, \$2.50 to \$6.

British Cattle Markets.

London—Live cattle are quoted at 11c. to 12c. per pound; refrigerator beef, 8½c. to 8¾c. per pound; sheep, 12c. to 13c. per pound.

Montreal.

Eggs—Receipts larger, and prices correspondingly lower; sales, 14c. to 14½c. a dozen, wholesale.

Butter—Towards the close of last week prices declined unexpectedly, from about 28c. or 29c. to 26c., while some dealers said they would not pay more than 23½c. for finest creamery in the country. Stock very scarce, and it would seem that larger receipts would be necessary to force prices down.

Cheese—Little change here, though Liverpool prices have advanced slightly; 12c. to 12½c. Make of fodder, it is said, will be light throughout the country this year.

Maple Products—Make light, but price affected by the consumers' uncertainty as to whether the product is genuine. Syrup ranges from 6c. to 7½c., according to quality and quantity. Sugar quoted from 16c. to 12c. lb., as to quantity and quality.

Potatoes—Prince Edward Island potatoes offered freely of late, with promise of large quantities when navigation opens. Large receipts of fine Quebec stock, and prices 5c. easier than a week ago. Choice, in carloads, on track, 60c. per 90-lb. bag; fair quality, 55c.

Flour—Demand dull, both local and export. Manitoba patents, \$5.66 barrel.

Millfeed—Bran very scarce; Manitoba, in bags, \$16; shorts also scarce and active, at \$20 in bags.

Live Stock—English market slightly improved, and trade better. London quoted American cattle at 12c. for best, and Liverpool quoted them at 11½c., Canadians being about 1-3c. lower in each case. Shipments from west St. John, N. B., and Portland last week amounted to 1,586 head of cattle, against 1,533 head the previous week. The feature of the local market this week was the weakness of hogs. The high prices which have prevailed for some time past have at last had their effect. These, combined with good weather and improved roads, brought out a large supply of hogs this week, and prices have declined from 1c. to ¾c. per pound. Offerings have been greater than local packers and dealers could absorb, so that whereas the first sales of the week were made at 6½c., for select light hogs, the market sold off to 1c. and ¾c. before long, at which price everything so far has been absorbed. Mixed stock sold about 6½c., and heavy at 1c. While hogs were easier, cattle were firmer. Offerings were none too large, especially in choice stock, the result being that prices advanced about 1c. Choice sold at 4½c. to 5c. or 5½c.; fine at 4½c. to 4¾c.; good butchers' stock at 3½c. to 4½c.; medium at 3c. to 3½c., and common at 2½c. to 3c. Sheep and lambs were scarce, old sheep selling at 4c. to 4½c.; yearlings at 5c. to 5½c., and spring lambs at \$4 to \$7. Calves were in fair supply at \$2 to \$4 for poor, and \$5 to \$9 for good.

Horses—Demand for good, heavy animals rather lighter this week; prices about steady, save that coal-carthorses of 1,350 to 1,450 pounds each, are slightly dearer, at \$175 to \$225 each. Heavy draft horses, 1,400 to 1,500 or 1,600 pounds, are \$200 to \$250; express horses of 1,100 to 1,300 pounds, \$150 to \$200 each; fine, sound, carriage horses, \$200 to \$500 each, and cheap animals, 1,000 to 1,200 each, \$75 to \$125.

Dressed Hogs, etc.—The market for dressed hogs is 1c. to ¾c. lower than a week ago, the cause being the decline in the market for live stock. Fresh abattoir hogs, light select stock, are selling at 9c., some bringing 9½c.; mixed stock, 8½c., and heavy, 8½c. The market for provisions is otherwise unaffected, prices not having advanced with live stock, and not now declining with it. Bacon, green, is quoted at 8c. to 8½c., and finest sacked at 12c. to 12½c.; hams, heavy, 10c. to 11c., and light, 12c. to 13c.; pork, \$17 to \$30 per bbl.

Hides—Firm at the recent advance of ½c., at 9½c. for No. 1, 8½c. for No. 2, and 7½c. for No. 3, with 4c. to tanners. Basis, Montreal. Sheep skins, \$1.20 each; lamb skins scarce and not in very active demand, the wool on them being very light. Prices are 10c. each. Call skins are increasing, and are selling at 14c. per lb. for No. 1, and 12c. for No. 2. Horse hides are \$2 for No. 1, and \$1.50 for No. 2, demand dull.



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Head Office, Toronto, Ont.
Edward Gurney, President.

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G. de C. O'GRADY, General Manager.

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In answering the advertisement on this page, kindly mention the FARMER'S ADVOCATE.



Life, Literature and Education.

"The ideal social state is not that in which each gets an equal amount of wealth, but in which each gets in proportion to his contribution to the general stock."—[Henry George.

"There is a burden of care in getting riches, fear in keeping them, temptation in using them, guilt in arousing them, sorrow in losing them, and a burden of account at last to be given up concerning them."—[Matthew Henry.

The Speculation Devil-fish.

There is a street in New York City—not the only one of its kind in the world, or even in America, by any means, yet one typical of its kind—a little narrow street with immense buildings towering on either hand, their plate-glass windows labelled with the names of brokers and firms, trusts and corporations. Prosaic enough, commercial enough—all this—and never a sign to reveal the depths that yawn behind—abysses indeed, yawning indeed, mysterious indeed, to the uninitiated who pass along the crowded street, not one of whom, perhaps, whether he knows it or not, who has not contributed his mite or his thousand mites to the great "devil-fish," as Frank Norris has so aptly called it, of which this office or that may be but the sign and symbol.

But the head and center of this great devil-fish community, perhaps, lies a little further up the street. Reaching it, you would recognize at first no devil-fish headquarters. You go in at a very ordinary door and up a very businesslike elevator to the most modern of "visitors' galleries." As you go up, possibly a distant humming reaches your ear, a confused clamor of voices, for the monster is here noisy enough, though its tentacles are spreading constantly, silently, slimily out over the whole land and a score of lands, sucking, drawing from the people—the farmer at the plow, the widow in her little shop, the rich man in his office—the copper and silver and gold which are the life-blood that it seeks: here a little, there a little; here much and there much. Arriving in the gallery you look down upon a curious scene. Perhaps it occurs to you that here is Pandemonium got up in twentieth-century style. Imagine it—an immense business office, with telegraph keys clicking incessantly everywhere, it seems, and telephones ranged by the hundred along the walls, each with its boy waiting to answer on the first twirl of the bell. The whole of the great floor, which is covered with scraps of paper, is occupied by men—a living whirlpool—surging and crowding and jostling one another. A sort of depression in the rear, built downward, with steps around the sides like an amphitheatre, is also crowded with them—men everywhere; well-dressed men and poorly-dressed men; men with faces conorted with anxiety; men with the smile of triumph still upon their

lips; men with desperate faces, and men with cool, calm faces which nothing can change; angry faces, bitter faces, animated faces—moving, surging like the white waves on a tempestuous sea. "Only twenty feet across, but reaching clear down to hell," is one terse description of this "pit." Presently someone shouts, and immediately begins a shouting and howling of voices, pandemonium let loose; the bidding for stocks has begun, and fortunes are trembling in the balance. When it is over, ten men or twenty, perhaps, may go forth with added thousands, and while they chuckle, others—hundreds it may be—have taken the step that means to them financial ruin. Another turn of the wheel, and of these some may go out and down the little street to suicide or the lunatic asylum; others will go back to the field, the factory or the office to earn more money, in order that they may come back and squander it again in this vast gambling den; while yet, many more will leave, sadder and wiser men, taught once and for all not to give more than they are compelled to to the gaping maw of this financial monstrosity. One has used the word "compelled" advisedly, for, strange as it may seem, there is neither man, nor woman, nor child in Canada or the United States, nor to some extent, to the ends of the earth, who has not in some way been affected by the operations on Wall Street or its kin.

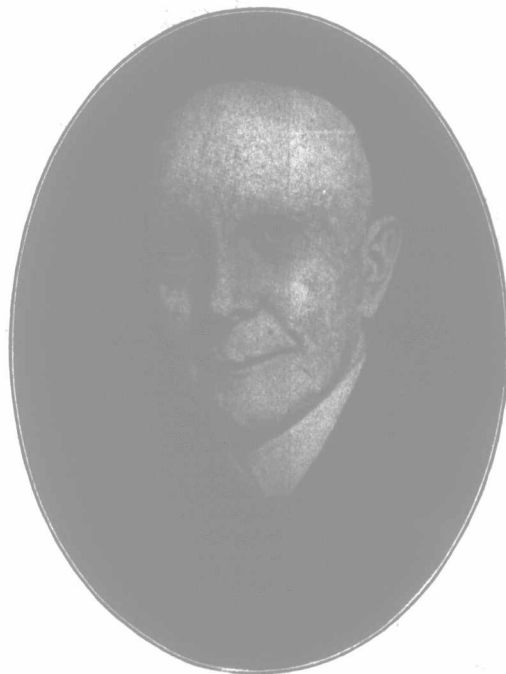
To explain how this may be, it is necessary to tell something of the nature of how transactions here are carried on. As will be understood, "stocks" are simply so many paper slips which represent the value of some business—mining property, railway shares, trust company shares, etc. These slips are bought and sold usually by men who never see the property, or whatever it may be which they represent. Often they change hands many times in the course of an hour or a day. A man buys at say 75 or 80, and sells at 120 or 130; he has made so much clear profit without a single exertion of muscle or brain, except what he gets while shrieking his bids on the stock exchange. The greenhorn goes in—and, by the way, he has either to be bitten or to succeed many times before he ceases to be a greenhorn—nothing looks easier than to "make money" by this process. He sees men buying from other men with avidity, and never suspects that often these buyers and sellers are in league with one another, buying and selling, that he and other greenhorns like him may be trapped. What others are not afraid to buy he is not afraid to buy. There may be a good thing in it. He is seized by the spirit of speculation, which is very contagious in this atmosphere of bulls and bears. He has visions of an easy life and lots of money forever after. He invests perhaps a little, perhaps all he has, according to the grip the fever has on him, and is presently the proud possessor of stocks for which he has paid, perhaps, 110. He cannot foresee the panic which is likely to come, or if he does foresee it and is unscrupulous enough, he hopes to have realized his little pile by selling to someone else at a higher rate before the flow falls. Perhaps he does this; perhaps the blow forestalls him. There is a

sudden slump, the value goes down, perhaps, to 30, and the chances are that he is ruined, while his hard-earned money has gone into the coffers of the men "behind," who have engineered the whole affair.

Simple it seems when told, and yet many will go back again and again to meet the same fate. There is always the possibility of the lucky turn, or the game would soon play out, and the men behind see to it that there are enough lucky turns to keep the game going. So the tried come back and back again, and there are always enough of the green willing to step in and be fleeced. And this fleecing is carried on with impunity, for the victims come in of their own free will, and who can punish a man or a number of men for taking what another man voluntarily offers? Simple enough the whole operation seems, yet it is far from being simple, for scarcely a glimpse has as yet been given of the trickery, the endless machinations and subterfuge and dust in the eyes, used by the directors of these Wall Street operators to beguile money from the unwary. Occasionally some big financier grows sick of it all and "tattles." For instance, a

got the loan by pledging his real estate as security, still owes \$13,000. What does this mean? Why, he had lost \$13,000!

To come back, however, to the query as to how every man, woman and child on the continent may be still further affected by these operations: It would surely seem that those who keep out of the muddle and away from Wall Street have no cause to fear. Yet such is not the case, for the tentacles of the octopus spread far and silently. Although the headquarters of most of the great corporations, etc., are located in Wall Street, there are branches, known as broker's offices (bucket shops), scattered in every town, each of which is equipped for the leeching business, and which, though often unsuspected even by the managers and employes of them, usually carry out this special business nobly. . . . Again, when stocks are down, and there is danger of a sudden panic, these strong financial firms at headquarters have no fear; they know the banks are ready to loan them money at a high rate of interest. This loaning is sometimes necessary, hence the money honestly earned by the people and deposited in the banks for safe-keeping, goes to uphold these very institutions whose business is the fleecing of the multitude. . . . Once more; the great trusts listed on the Stock Exchange, the railway companies, etc., hold the purses of the people practically in their own hands. Take a Sugar Trust, for instance. If it be strong enough—and strong enough it must assuredly be, or it would not be listed on the Stock Exchange—it has only to say, in an inaudible whisper, of course, "The pound of sugar shall sell for more," and straightway the deed is done. Every considerable sugar manufactory in the country is under control of the Sugar Trust, and so the price of every pound of sugar in the country goes up, and the farmer, the mechanic, the business man, simply has to pay more for it, hand out his money without warning or reason, to fill the coffers of the few men at the head of the Sugar Trust. So it is with other things—coal, coal-oil, salt—whatever it may be.



John D. Rockefeller.

The richest man in the world.

big sensation has been caused recently by the revelations of Thos. W. Lawson, of Boston, himself a multimillionaire, and for many years one of the foremost in the "System" which he condemns, who ostensibly pro bono publico has been showing forth what he can of the devilry at the back of it all. And yet there is more to be told. Speculation is spreading everywhere. "Get rich quick" concerns are flourishing. Thousands are drawn into their speculative meshes. The manager of a Canadian banking institution tells us that at the time of the Ames failure last year, he had three applications for loans, aggregating about \$50,000, in twenty minutes one day by men who had been "dabbling in stocks," and were getting "cornered." No one would have suspected it of the men in question. One of them, who

All the strong companies, of course, are not listed on the Stock Exchange. Some of the strongest trusts, e. g., the Standard Oil and the Beef Trust, are not of these. But the principle is the same. One and all of these combinations, whether listed or close corporations, have been formed for the express purpose of getting money out of the public. By their existence the people are kept poor, or are made poorer, while a select few, good enough men, too, in their way, except that they seem to overlook the fact that a wholesale extortioner or oppressor is, after all, not so radically different from a little one, are made rich—tremendously rich, dazzlingly rich. John D. Rockefeller's fortune, for instance, amounts to \$900,000,000; Carnegie's is \$300,000,000, lesser lights following. Rockefeller made

his money, so they say, in "Oil," Carnegie his in "Steel," and the lesser lights in railways, beef—whatever it may be. Those who call things by plainer names, have a different version of it. After all, it is but another reading of the old axiom, "One murder makes a villain; millions a hero."

A Word by the Way.

Two ladies, both well dressed and evidently belonging to the higher walks of life, were going along a city street; one of them stopped and spoke a word to a dull, tired-looking woman, who had a fretful-looking baby on one arm and a basket on the other, in which she had a few bananas and apples and cheap candy for sale.

"Why, Helen," said the other, lady, "what made you stop and speak to that woman? What did you say to her?"

"Oh, nothing much. It was just a word or two by the way; that was all. She looked so tired and discouraged, and I stopped to give her a few pennies and say a word or two to her."

A few minutes later the two ladies were in one of the great stores of the city, where they made some purchases, and while they waited for their change, the lady who had spoken to the apple-woman entered into conversation with a sales-girl, and gave her half a bunch of violets.

When the two ladies were on the street, one of them said:

"Why, Helen, how could you be so familiar with the shop girl? What were you saying to her?"

"Oh, not much of anything. It was just a word or two by the way. I thought she looked tired and a little ill, and she said that she did have a severe headache. Did you notice how she brightened up when I gave her the violets?"

A word by the way! A kindly deed by the way! How many burdens would be lightened, how many hearts would be gladdened, how much weariness would be forgotten, how smiles would take the place of frowns, how much more beautiful and infinitely better the world would be if every man and woman, every boy and girl, lost no opportunity of speaking a kindly word or doing a good deed by the way! Try it for a single day, and see if it is not one of the happiest days of your life.—[Forward.

The Weeping Pitcher.

The subject of our picture is a tender legend which runs as follows: A broken-hearted mother, inconsolable for the loss of her little daughter, had a strange vision. She beheld the angel to whose care the souls of departed little ones are entrusted, leading her tender charge through the fields. The spirit band had passed over a low stone wall; but one child, the last of the company, bore in her hands a pitcher, the weight of which prevented her from climbing the wall. The sorrowful mother recognized this child as her own lost darling, and hastening forward clasped it to her bosom in an ecstasy of joy. The child nestled lovingly in the mother's embrace. "How warm it is in mother's arms!" she exclaimed. But she might not stay; and, as she turned again towards her young comrades of the spirit-world, she looked beseechingly into the mother's pale, yearning face, and said, "Do not cry so much, mother dear, for I must carry all your tears in my pitcher." Such is the pathetic story, framed no doubt with intent, if possible, tenderly to check the excess of maternal grief. But what can arrest that tide of sorrow! Rachel weeping for her children, and refusing to be comforted because they are not, is an enduring type of the bereaved mother.

"You can buy a lot of home happiness with a mighty small salary, but fashionable happiness always costs just a little more than you're making."



Seeking the King.

Draw me, we will run after Thee.—Cant. i: 4.

I will seek Him Whom my soul loveth.—Cant. iii: 2.

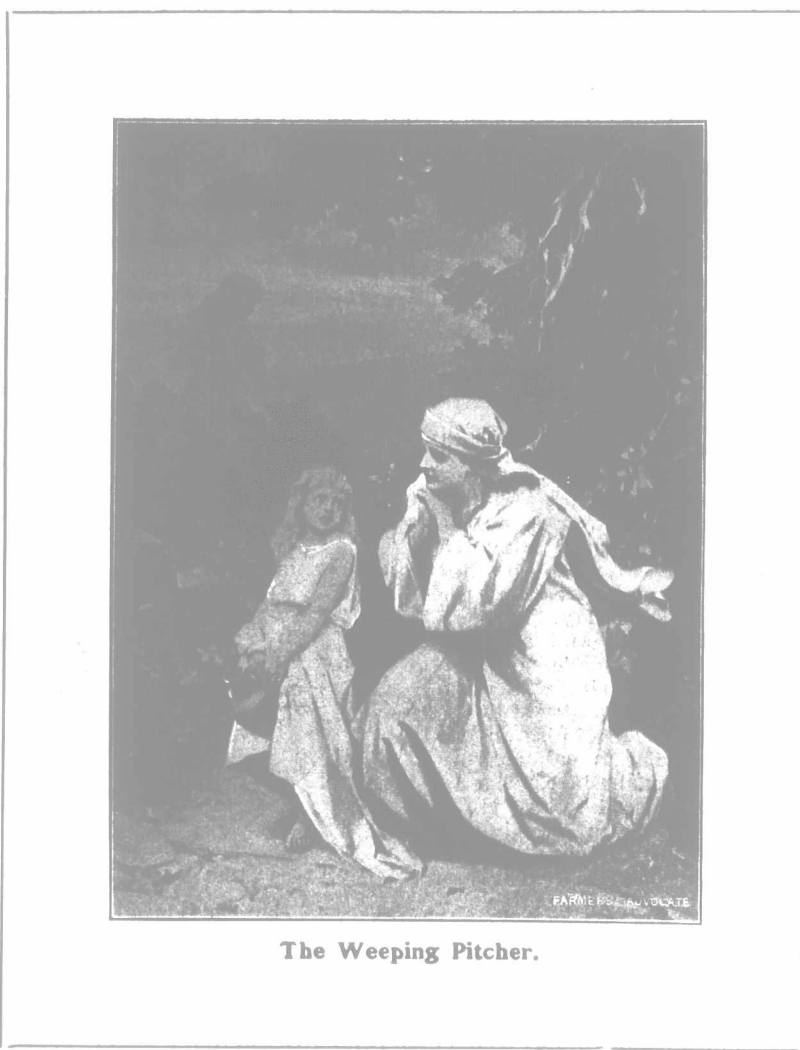
"What is it that I hunger for but GOD?"

My GOD, my GOD! let me for once look on Thee, As though none else existed—We alone! And as Creation crumbles, my Soul's spark

Expands till I can say, even for myself I need THEE, I feel Thee, and I love Thee!"

I have just been reading Henry Van Dyke's beautiful little romance, "The Story of the Other Wise Man," which, as he explains, came to him one sleepless night. He says: "I have never felt as if it were my own. It was a gift. It was sent to me; and it seemed as though I knew the Giver, though His name was not spoken." The story of Artaban—the "other wise man"—is, briefly, this: He had arranged to travel with the other Magi to Judea, taking with him three magnificent jewels to present to the new-born King. One of these jewels was a sapphire, "blue as a fragment of the night

the man would certainly die. Should the great quest be risked for the sake of a deed of love? One short prayer for guidance was flashed up to the "God of Truth and Purity," and he hesitated no longer. After a long and tedious delay his restoratives proved successful, but not without great cost to Artaban. The caravan had started without him, and he was forced to part with the sapphire in order to buy camels and provision for the long journey. Reaching Bethlehem at last, another disappointment met him: The Infant King had departed into Egypt in order to escape the wrath of Herod. While Artaban talked to a young mother in a cottage and caressed her little baby, the soldiers began their dreadful slaughter of the innocents. There was no hesitation this time. Artaban's face, as he stood blocking up the doorway "was as calm as though he were watching the stars. He held out to the captain of the band of soldiers the great, glistening ruby—parting with this second jewel in order to save the life of the baby in the cottage behind him. Forced by the constraining power of love, he had "spent for man that which was meant for God," and wondered sadly whether he should ever be worthy to see the face of the King.



The Weeping Pitcher.

sky"; the second was a ruby, "redder than a ray of sunrise"; the third was a pearl, "as pure as the peak of a snow mountain at twilight."

Artaban had planned to meet his companions at Babylon, but, as he hurried to the meeting-place, he discovered a dying man lying right across the road. Then came a moment of painful indecision. This stranger had no real claim on him, and, if he lingered, his friends would go without him to seek the King. On the other hand, if he hurried on,

But no disappointments could quench the soul-hunger which drew this wise man on. Year after year slipped by as he eagerly searched for Him, Whom, having not seen, he loved. Although the search for the King seemed fruitless, he found many who needed kindly help. He "fed the hungry, and clothed the naked, and healed the sick, and comforted the captive," while thirty-three years went swiftly by. Old, worn and weary, but still seeking everywhere, he at last found himself in Jerusalem—only to hear that the King was

dying on a cross. One last hope drew the feeble old man on. Perhaps he might yet be in time to offer the pearl as a ransom for his Master's life. But again he was stopped. A young girl was being dragged down the street by a troop of Macedonian soldiers. She threw herself at his feet and begged him to save her for the sake of the "God of Purity." He, who had so long lived a life of love, had no choice now. The pearl was "luminous and radiant, and full of tender, living lustre," as he gave it for the poor maiden's ransom. Now, Artaban had nothing but his love to present to the King if he should find Him. But suddenly there was an earthquake, and a heavy tile fell from a roof above, striking him to the ground.

Then some softly-spoken words in his own tongue sounded like music in the distance, and the old man answered:

"Not so, my Lord! For when saw I Thee an hungered and fed Thee, or thirsty, and gave Thee drink? . . . Three-and-thirty years have I looked for Thee; but I have never seen Thy face, nor ministered to Thee my King."

Very faintly and far away sounded the answer:

"Verily I say unto thee, Inasmuch as thou hast done it unto one of the least of these My brethren, thou hast done it unto ME." The pale face of Artaban was lighted up with wondering joy; for his long journey was ended, his treasures—sent on before—had been graciously accepted. "The Other Wise Man had found the KING."

Strange and mysterious is the attraction of Christ. Quietly, secretly, yet with irresistible power He draws souls after Him. Like Artaban, we press on, seeking our King. Perhaps we also think that the opportunities of service which lie right in our path are interruptions and hindrances instead of helps. But, in our search for Him, let us never forget St. John's warning: "He that loveth not his brother whom he hath seen, how can he love God Whom he hath not seen?"

Artaban only understood the glory of a life of service when it was ended, but why should we not live always in the sunshine? That wonderful "Inasmuch" text can transform the most commonplace life, changing difficulties into opportunities, weary duties into loyal service. We need not seek year after year to find the King, for He is always at our side, and will gladly accept our gifts—even the gold of a secret consecration revealing itself in the whiteness of a life purer than a pearl of great price; a love more precious than any sapphire, proved by a glad self-sacrifice brighter than the costly blood-red ruby. Such jewels as these our Great High Priest wears "upon His heart, when He goeth in unto the Holy Place, for a memorial before the Lord continually."

Surprises there will certainly be when God's great light is turned on the lives of men. Some who think they have offered great treasures, may find that they have already received their reward—the reward they coveted—even the praise of men and the pleasant consciousness of self-satisfaction. While others, who think they have had no influence for good because their lives have been quiet and unassuming, may find that the mites, which seemed to themselves and the world so insignificant as they were dropped unobtrusively into the Treasury, are jewels indeed, and dear to the heart of the King. Oh, let us keep unsleeping guard over our motives; for, terribly often, examination will prove that our gifts, if they are the expression of love at all, only express self-love.

Men's circumstances may change, but the deepest instincts of human nature are the same in every age. The joy of giving is always greater than the short pleasure of getting. Sacrifice—real sacrifice—if it be, indeed, the child of Love will always walk hand-in-hand with Joy. The mysterious attraction which constrained the wise men to leave home

and country, not for what they might gain, but for what they might give, has lost none of its force to-day. Christianity is far more than a moral force; it is the visible sign of one of the mightiest things we know—even the attractive power of Personality. Innumerable thinkers agree in declaring that the heart of man can only rest on a "Person." No abstract philosophy can satisfy the soul which is, and must ever be, athirst for the "Living God." Who can deny Liddon's statement that this strong passion or desire of the soul, mounting towards God "with all the agonized earnestness of a disappointed and tortured sense—speaks, not merely or chiefly in the churches and pulpits, but in magazines, in newspapers, in social gatherings, in political assemblies."

What do we look forward to most in our visions of the life beyond the veil? Surely it is not chiefly the relief of a freedom from pain and temptation, but rather the joy of beholding the King in His beauty, the fulfillment of the promise—so dear to the heart of every loyal servant—"They shall see His face."

"Would not the loss of Him be greater loss Than if the whole world went from you? What, without Him, can it give you? Apart from Him, life is a grievous hell; With Him a pleasant garden."

I speak to those who count His service the great joy of their lives—taking it for granted that others will hardly take the trouble to read these weekly talks—and to you I say: Don't get discouraged in your upward climb, for it is the most natural thing in the world to want to mount higher. God has made us to climb, and no one can find real satisfaction in standing still or slipping down hill.

Man was made to grow, not stop; That help he needeth once and needs no more— Having grown but an inch by—is withdrawn. For he hath new needs—and new helps to these. This imports solely, man should mount on each New height in view; the help whereby he mounts— The ladder-rung his foot has left—may fall. Since all things suffer change, save GOD the Truth. Man apprehends HIM newly at each stage Whereat earth's ladder drops—its service done; And nothing shall prove twice what once was proved."

HOPE.

Character.

How you have hated yourself during the past year for doing the mean, contemptible, questionable thing! Yet you have tried to console yourself with the great good you could do with the money you made by it. It is astonishing how men will play with the poison of dishonesty, which is so insidious at first, which intoxicates and stimulates one, but paralyzes and kills later. If every youth were only taught that to be successful, a man must be greater than his occupation; that his character must not be for sale at any price; that he will always be rich so long as he retains it, and just in proportion to its strength and integrity, and weak and unhappy and a failure no matter how much money he may have, just in proportion to the weakness of his character; if he only started out with the conviction that only one real failure is possible, and that is the loss of self-respect, the barter of one's character, either for pleasure or for money; if the youth were only taught that he cannot afford to deceive even a little bit in the quality of goods he is selling, or in the quality of the service he is giving, what a revolution would come to our civilization!

Mr. Jones—See here! This horse you sold me runs up on the sidewalk every time he sees an auto.
Horse Dealer—Well, you don't expect a fifty-dollar horse to run up a telegraph pole or climb a tree, do you?



One Spring Shrub.

By Mrs. Anna L. Jack.

A child of the city came in with a spray of white blossoms in her hand, asking, "What flower is this?" It had been broken from a clump of small trees of Amelanchier botryaphium, and was full of the mysterious charm of early spring. "It wasn't as pretty as this yesterday," she said, "can't you give me a smaller name?" So we called it "Shadbush," and "Juneberry," the first, because it blossoms when the shad are coming up the river; and the last name, because the purple fruit ripens in that month.

It is said to be very pleasant to the taste. It may be; but only the robins, or blue jays, or some other feathered raiders know for certain what a real feast of them can be, for no ripe berries are seen on our bushes, though we have watched for their ripening. But the long sprays of pure white flowers are charming, coming, as they do, in early spring, standing like ghostly sentinels in the garden and woodland, before other trees attain full leaf, and delighting the plant-lover with a profusion of graceful loveliness.

The added characteristic of hardness is a decided acquisition in a northern climate, and yet it is a favorite in more southern countries, where it is called "Service Berry," and much valued as a confection for the table. But the trees are often

A Request.

Dear Flora Fernleaf,—Will you be so kind as to give a list of flowers that will grow up every spring without fresh seed; also a list of the creeping vines that grow fast all over the house or porch, and oblige one of your flower lovers?

BLUE BELL.

Ans.—All plants marked in the catalogues as "perennial" grow up year after year. Some of them, however, cannot stand our winters, and require to be taken into the cellar every fall, but the following will be found perfectly hardy, requiring little care, other than to keep the grass from encroaching, and perhaps the putting on of a light covering before winter sets in: White—Achillea, White Columbine, White Perennial Phlox, Whirlwind Anemone, White Peony, White Double Daisy, Lily of the Valley. Blue to purple—Monk's Hood, Perennial Forget-Me-Not, Perennial Larkspur, Blue Iris, Scabiosa Caucasia. Pink to crimson—Garden Pink, Sweet William, Bleeding Heart, Pink or Crimson Peony, Pink or Crimson Perennial Phlox, Michaelmas Daisy, Oriental Poppy, Gaillardia Grandiflora. Bright red—Sardinal Flower. Yellow—Golden Saxatile, Coreopsis Lanceolata, Golden Glow, Iceland Poppy, Siberian Lily, Hellanthus, Yellow Iris, Hardy English Primrose, Hypericum. If some of these do not show any flowers the first year do not be discouraged; they will bloom continuously after the first season.

In regard to vines, we would say that if you wish quickly-growing

suckle, Virginia Creeper, Trumpet Vine, Wistaria, Chinese Matrimony Vine, or any of the hardy climbing roses.

Seasonable Hints.

Thin out asters, etc., to two inches apart when they show the third leaf, and transplant those removed to three-inch pots or little cotton bags, filled with clay, placed side by side in a shallow box. When all danger of frost is past, take the box out to the garden, clip off the cotton, and set the little lumps of clay in holes made to receive them. In this way they may be removed without any disturbance to the roots. If it is inconvenient to have these boxes about the house, one may set the little plantlets out in a "cold frame," which is simply a bed of rich soil, made in a frame with glass over it. The glass, of course, must be raised at the back for ventilation during the day, and well covered with matting at night.

Shrubs and trees may be planted early in the spring before active growth has started. Roots of perennials may also be transplanted. If one takes care to keep plenty of clay about them, the plants will suffer nothing by the moving.

Sow poppies very early in the spring, and thin out ruthlessly if you want to have strong, sturdy-looking plants and brilliant blossoms. As the seed is very fine, it may be well to mix it with sand when sowing, in order to sow thinly enough. Frost does not harm poppies.

If for any reason you cannot have a flower garden this year, plan for a few outside window-boxes.

Borrowing Trouble.

A woman with two small children entered a suburban street car. Such an anxious face she had, with a tense, worried look in her dark eyes! Those sitting near looked at her pityingly. Only a hard, wearing life, they thought, could have given her that expression.

She had not ridden more than a hundred yards when the troubled look deepened on her face. She gazed up at the high bell-rope, as if meditating a desperate reach after it. Her anxiety communicated itself to the children, whose tiny faces became almost ludicrous little copies of hers.

"Do you wish to stop the car?" asked a man next to her, turning as if to signal the conductor.

"Oh, no, sir, not yet," she said, "not till I get to Blank Road; but I'm wondering how I'll get the conductor to look round."

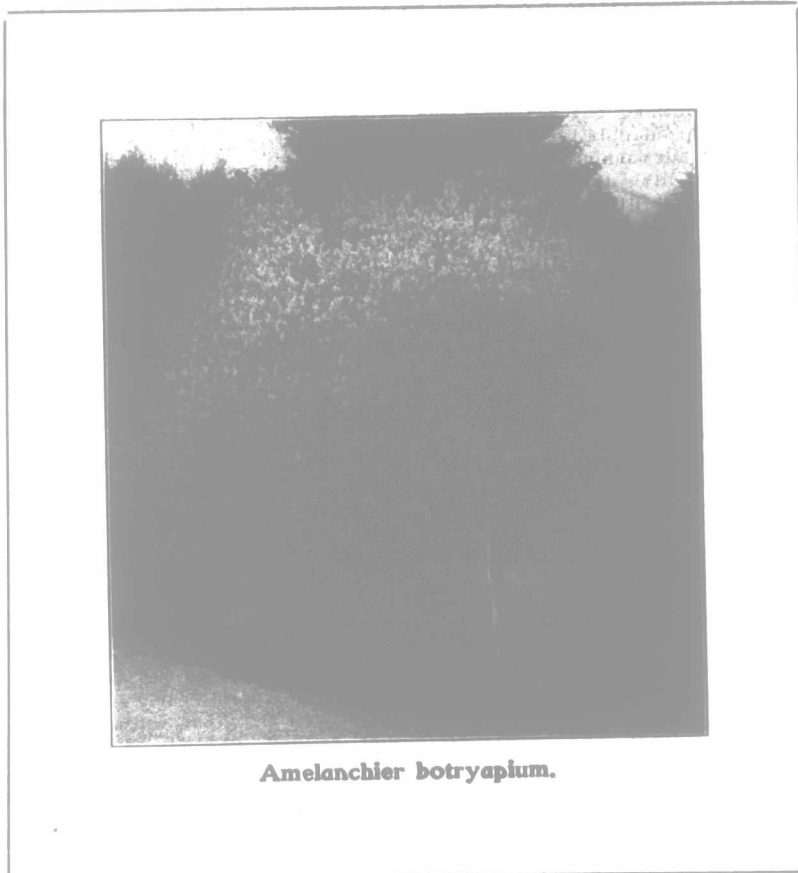
"I'll see that he does," the man replied, kindly.

"The idea of her beginning to worry already," whispered a woman behind her. "Blank Road is two miles from here."

It was a pleasant country road that the car followed, with green fields and wooded tracts sending whiffs of fragrance through the open windows, but it is very doubtful if the anxious-faced woman felt any pleasure in the ride. She sat stiffly upright till Blank Road was reached, and when she alighted with her small charges, a smile could hardly be restrained on several faces.

Yet, after all, how many of those left in the car could truthfully say they did not share in some degree this same unfortunate habit of borrowing trouble? Do all of us take the pleasures of the life journey as they come to us, or do we too often lose some of the wayside beauty because we are fearful of trouble that may lie ahead.—[The Golden Rule.

Fussy Landlady (to new lodger): "Well, sir, if you'll only tell me when you want a bath, I'll see you have it."



Amelanchier botryaphium.

cut down in order to reach the fruit, and no thought given to future beauty and usefulness.

"I wish we had one in our front yard in town," said the little girl, longingly, as she placed her spray in a vase on the table. Juneberry is, indeed, ornamental at this season of the year, and deserves more notice than it gets, being quite overlooked among the novelties that are brought from other lands. But for early flowering and delicate beauty, it needs only to be seen to be appreciated.

ones that will make a considerable show in a very short time, you might try the Japanese Kudzu vine, Japanese Hops, Dutchman's Pipe, Cobaea vine, or even Gourds. For veranda or porch vines, Japanese Morning Glory, Canary Vine, Cinnamon Vine, Balloon Vine, Perennial Peas, Moon Flower or Wild Cucumber would probably be satisfactory. If, however, you want to plant strongly-growing, woody vines, which will be there for keeps, you will find the following very desirable: Boston Ivy, Clematis, Honey-

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THE CHILDREN'S CORNER

Prize Competition.

The prizewinners in the "Boy Knight" competition are: Class I.—Winnie V. Kincaide, Kerwood, Ont. (aged 16). Class II.—Elizabeth Riddell, King, Ont., and Lucy Moran, Moran P. O., Blissfield, N. B. (aged 13). Class III.—John Joseph Brickley, Marysville, Ont. (aged 7). Hugh Bowman, Minnie Elliott, Thomas Cairns, Maggie Miller and Annie Roberts deserve honorable mention.

A Boy Knight.

The warm March winds swept down the hillside to the vale below, tossing the curls of a brow-haired maid of two, and kissing the sun-burnt face of a four-year-old boy; the water gushed and gurgled, and at intervals the ice gave a warning crack and then floated down the stream to the bridge below.

Harold and Marjorie were playing at the water's edge, pushing the great cakes of ice down the stream. "Helpin' the boats," as Marjorie called the ice, "along." "Let's play one is your boat and one is mine, Marjorie, and we'll have a race?" said Harold. "Alright," chimed in the baby voice. So, with that in view, they began pushing the ice with sticks, and soon the race began. First, Harold's boat is caught, and refuses to go, then by a big effort he pushes it free. On it floats, on, on, past Marjorie's. "You goes too fast, waite, Harold! waite!" But Harold, eager to win the race, runs on, heeding not the plea. "I just don't like you, one bit, you bad, naughty boy! I'll not race with you at all!" exclaims Marjorie, beginning to cry. "Come here, Marjorie, quick!" cries Harold, "here is a muskrat." The tears, which a moment before had been falling like rain, ceased in an instant, and with an assuring, "alright!" she soon overtook her brother. "I'll get a stick and we'll get him," said Harold, but Marjorie was anxious; so, stepping out onto the ice, she reached far out for the prize. "Be careful!" called the boy, but his warning came too late. With a sharp crack; the ice gave way beneath her feet, and then, nothing but her dress was to be seen. Harold didn't run for help, or even cry out, but running to her assistance, caught her little dress in his hands, and with a manful little pull, soon had her out. She was none the worse, only the wetting; and, taking her hand in his, they ran to the house to mamma. Harold, breathlessly exclaimed, "Marjorie felled—in the creek—and I pulled—her out!"

Harold probably would not do for a story-book knight, being a real little mischievous boy, but he showed real presence of mind by acting so promptly.

WINNIE V. KINCAIDE (aged 16 yrs.),
Kerwood, Ont.

King, March 1st, 1905.

Dear Cousin Dorothy,—Although a stranger to your corner, I have always read your essays with much interest. The story I am sending is true, and, even if I do not get a prize, I shall not think any the less of my hero.

Sincerely yours,

E. RIDDELL.

A Boy Knight.

A certain school in Canada prided itself upon its fire drill. In their weekly practice, at the sound of the gong, one of the intermediate boys was trained to station himself at the foot of the main stair, near the cellarway, with a drum. At the first beat, the children in the various rooms began to file out into the halls, each in his place, keeping step, moving toward the stairs, and on out into the yard. They followed the drum-beat almost mechanically, but without hesitation.

At last, after many months of drill, one morning fire suddenly broke out in one of the upper rooms. A hundred children screamed "fire!" Principal and teachers lost their heads, all was confusion; the halls were a scene of mad excitement; pupils tripped each other down in their efforts to reach the stairs. Suddenly, from far below, came the familiar

drum-beat. Instantly the children began falling into line, soon they were moving in parallel columns down the stairs, quickly, regularly. The teachers resumed their places of command, and every child passed out in safety.

Blinded with smoke, fainting from the heat, the drummer stood at his post alone until eager hands came to his rescue. Because he was true to his trust, not one home had lost a loved one.

Horatius at the bridge, performed no nobler deed of valor.

ELIZABETH RIDDELL (aged 13),
Box 18, King, Ont.

Blissfield, N. B., Feb. 16th, 1905.

Dear Cousin Dorothy,—The enclosed story is a very true one, which happened last summer here.

Yours very truly,

LUCY MORAN (aged 13 years),
Moran P. O., N. B., Canada.

A Boy Knight.

One June morning, the warm sun shone on a group of children bidding their mother good-bye. There were Mrs. Keswick and her five children: Harry, aged 11; Lena, 9; George, aged 6; Louise, aged 7, and Johnny, the youngest, aged 3. Mrs. Keswick was a widow and earned her living by sewing and doing other little jobs.

Just before leaving, Mrs. Keswick said to Harry, "Be sure and take good care of Johnnie, Harry," and Harry answered, "Yes, mother, I will." Johnny was a very troublesome little fellow, and there was a railway track near the house, and Johnny was fond of playing near this.

Harry went into the garden now to weed a patch of onions, and Lena went into the house to see about some duties. George, Louise and Johnny were making mud pies. About ten o'clock, the train went down, and all at once, Harry heard Louise and George crying out, "Johnny, Johnny, come back, you'll be killed!" and he saw Johnny running toward the approaching train.

Harry ran after him, and suddenly Johnnie ran in front across the track; Harry sprang after him, snatched him and tossed him across the track, but in doing this he had bent his head down, and the train had struck him on the forehead, killing him instantly. The train was stopped, and the men carried him into the house, and George and Louise ran for Mrs. Keswick.

Poor Mrs. Keswick was almost broken down when she heard the sad news. The funeral was two days afterwards, and the little church was crowded with the people who had come to see the remains of the little hero who had given his life for his little brother's.

A Boy Knight.

I am a little boy, seven years old; I cannot read or write very well, but I try my best to read the "Farmer's Advocate," and enjoy it very much. I will now tell you a true story of a brave boy.

You will remember how cold it was last Christmas day, and when one of our neighbor's families came home from church, they were nearly frozen, and were all around the stove warming themselves and one girl, who was standing with her back to the stove had a funny comb in her hair which took fire. In an instant her head was a mass of flames, and while each one was running here and there trying to do something for her, a brave boy seized the burning comb and had the flesh nearly all burnt off his hand, but saved his sister's life.

JOHN JOSEPH BRICKLEY,
Marysville, Ont.

Admired by All.

I received your handsome premium, the wrist-bag, and I am delighted with it. Whenever shown it has been very much admired, and I think that every lady would be pleased to have one of them. Wishing you continued success with your valuable paper.

MRS. W. B. WILKINSON,
Bruce Co., Ont.

The Food Value of the Potato.

By S. L. Richardson.

Before you begin making experiments, as we do in our domestic science class, it will be necessary for you to understand how we measure, because the size of utensils varies so much in different houses.

We use those tin teaspoons which look a little broader than the ordinary teaspoon which is used at table. The tablespoon holds four of these; the dessertspoon two. But the way of measuring is an important point, as the spooning is not to be heaped nor yet scooped out. A knife is to be used when the substance to be measured is taken up in the spoon, to make it level from the handle of the spoon to the point.

For measuring the larger quantities, one gets in almost any hardware store a tin half-pint cup with grooves running round it, and dividing it into quarters on one side, and into two-thirds on the other. The measurements are always to be level.

Our last lesson was on some forms of starch.

Take a potato and cut it in two cross-wise. Cut off a thin slice, and hold it up to look through so as to see how it is formed.

Pare a potato and grate it into a piece of cheesecloth, which has been laid over a small bowl. When all has been grated, pour a little water over it, and wash within or through the strainer. Notice the fibre or cellulose which is left in the cheesecloth. Let the liquid in the bowl stand and settle, then pour off the water. Add some boiling water, stirring briskly as in making the ordinary starch. Starch, you notice, absorbs a great deal of water.

Of what constituents have we found the potato composed? Later we shall learn some others.

Pare a potato thinly, and drop it immediately into boiling water; with a little salt has been added; boil briskly, and as soon as it is so soft that it can be easily pierced with a fork, drain and shake over the fire to let the remaining water evaporate. It is because the starch in a potato takes up so much water that it becomes sodden and heavy if left to cook slowly.

Place a piece of cheesecloth over a small bowl of water; measure two table-spoonfuls of white flour into it; gather the edges of the strainer closely into one hand, and wash the flour with the other. Wash the flour in many waters, until it leaves the water clear. (Meanwhile, boil some of the milky-looking water to prove that it contains starch.) Notice how elastic and glue-like is the mass which remains in the strainer. What proportion does this gluten bear to the two table-spoonfuls of flour? This, then, is the amount of muscle nourishment in that quantity of flour.

But in analyzing food, the standard is the normal amount of each nutritive constituent, which is contained in 100 parts of flour, or whatever food we are analyzing, so as to know the percentage.

For instance, the potato:

The skin contains some poison; is of no use as food. Second layer consists of mineral matter and proteid. Inner part contains starch, water and proteid and fibre or cellulose.

This woody fibre when treated in some way, yields cheap sugar or glucose. It differs from other sugar, because it does not crystallize.

Cellulose is used for making a kind of buttons.

A potato contains:

Proteid	2.1 per cent
Fat	1.1 "
Carbohydrates or sugars	18. "
Mineral matter	2.9 "
Water	78.9 "

A girl about five years of age was wandering around in Glasgow the other day, when a policeman espied her, and asked, "Where are you going, sissy?" "Going home." "Where is your home?" "I can't find it." "Can't you?" "Then I'm afraid you are lost." "Oh no, I ain't," she promptly replied. "I'm right here, but home is lost." "I wish you'd be good and find it for me."

In answering any advertisement on this page kindly mention the FARMER'S ADVOCATE.



THANKS TO CONTRIBUTORS.

Dear Dame Durden,—As I have enjoyed the many letters in the Home Magazine for over four years, and never felt that I had anything to write about until the subject of farm and city life came up for discussion, I think that I must give my opinion, along with the rest of my country friends. Perhaps they will have some idea of how much I have been helped by the many really good letters written by them on how to do housework on a farm, when I tell them that I was born and brought up in one of the largest cities in the United States, and had not the slightest knowledge of farm life, until after ten years of city life my husband began to long for the home of his childhood, and decided to return to the farm, where he had spent twenty years of his earliest life.

Six years ago we came to one of the most dilapidated-looking farms one could see in Canada. My husband had frequently sent money for improvements, but none had ever been made, and everything had gone to rack. I sat down and viewed the house in dismay, and such a longing for my city home, with all its conveniences, came over me that I think I should have died right there had it not been for the encouraging words of my husband. He pointed out the possibilities of making it an ideal home. This could readily be seen, but as it was then the first of November, nothing could be done in the way of renovating the house until spring.

Luckily, the house was substantially built of brick, and when that dreary winter had passed, we moved everything into the woodshed, took all the partitions out, and changed the plan of the house entirely. Everything was made as convenient as possible, but still the longing for my city home remained, for the barns and fences were just as dilapidated as the house had been. That same fall the barns were overhauled, and repaired inside and out, and cement basements put under them. Some of the fences were repaired too, and a day's work prepared our front yard ready for sowing lawn grass seed in the spring.

All this improved the appearance of our home wonderfully, and the longing for my city home gradually began to fade away. All this time I had been trying to learn the ways of doing housework on a farm, for I found it very different from city housework. I could make bread, and knew how to cook, but there is a difference between getting a meal for three or four, and cooking for fourteen or fifteen threshers, as we sometimes have to do. We found help in the kitchen very hard to get, but succeeded at last in getting a girl at \$2.00 a week. I had great hopes of learning something from her, but soon found to my great disappointment that I knew as much as she did, and at the end of a month found her rather an expensive luxury, so I decided to learn from experience. My husband's people all lived within a short distance of us, but I was a stranger to them all, and it seemed they always pitied my husband, because he was foolish enough to fall in love with a city girl, so I looked to them for nothing, but determined that I would show them I could do farm work as it ought to be done, and set my whole mind on learning to do it thoroughly. About this time (our second year on the farm) an old gentleman called, for the purpose of getting subscribers for the "Farmer's Advocate," and our name was added to the list, and I am sure if the writers of those helpful letters could have seen how eagerly I read every word, they would be fully rewarded for writing. I have learned how to make butter that brings the highest market price, and cooking for threshers has no terrors for me now.

There is no doubt about there being more work to do on a farm than in the city, but if we do have to dress our own fowl and make our own butter, we know they are fresh, and we know our children are drinking good, pure milk, and

breathing fresh air, and enjoying freedom and pleasures that they cannot possibly have in the city; and if we have a little leisure, we can study the beauties of nature to their fullest extent, instead of sitting and counting the bricks in the next building, or looking out on the dusty pavement. Six years of farm life have made me love the country, and nothing would induce me to return to the city to live.

I hope this letter is not too long to publish, as I would like to write again on farm life as I have seen it for the past six years, and tell why I think so many poor farmers fail.

A CITY FARMER'S WIFE.

Norfolk, Ont.

We shall be pleased to hear from you again.

A REQUEST: GINGERSNAPS.

Dear Dame Durden,—In looking over Dec. 22nd number of the "Farmer's Advocate," I notice where Aunt Marjorie says she has had excellent bread from a recipe taken from a former number of the "Farmer's Advocate." Would some one kindly give the recipe referred to again, please?

We have been taking your magazine for nearly a year, and I enjoy the "Ingle Nook Chats" very much. I like to learn something new about housekeeping, and am pleased to hear of other housekeepers' methods.

Aunt Marjorie describes the "kitchen cabinet" splendidly; it is a very useful article to have in a kitchen. We were burned out two years ago. When we built our new house we did not add a kitchen, and have but a small pantry. I thought a kitchen cabinet would be handy under the circumstances, and so it is, as well as a pretty piece of furniture.

I would like to add a gingersnap recipe which I have used for years: Bring to a scald 1 cup molasses, and stir in 1 tablespoonful soda; pour it while foaming, over 1 cup sugar, 1 egg, 1 tablespoonful ginger, beaten together. Then add 1 tablespoonful vinegar, and flour enough to roll, stirring the latter in as lightly as possible, by degrees.

I find a salmon can (with a hole made in the bottom, and the top taken off by setting it on the hot stove until the solder is melted) to be an excellent potato chopper. I also use large salt and pepper shakers on my range. They are very handy when cooking. Mine are nickel silver, and when cleaned once a week with whiting look very attractive. Further, I would like to add that a good cooking range is a great assistance to housework. I would like to express my appreciation of the "Home Comfort Range," which I think superior to all other ranges, as regards durability, good cooking qualities, and convenience, and if any of our readers contemplate purchasing a new range, I would, without hesitation, recommend the "Home Comfort," which will lessen the cares and troubles of a busy farmer's wife. I will close, wishing Ingle Nook every success.

AUNT MATILDA.

Halton Co., Ont.

ANSWER TO MARIE.

Dear Dame Durden,—In answer to Marie's letter of March 15th in the "Farmer's Advocate," I will just say it is different in my county. I have two brothers. They do all the milking in the winter, and always in the morning the whole year round, but I help them in the harvest time and all other busy times. I don't think their wives will have slave drivers for husbands. I do not think a farmer's wife has a harder life than any other man's wife. I am a farmer's daughter, and know just how hard the work is, and I prefer country life to town life. I think the boys know how to consider their mother and sisters, and that they will respect their wives, and not make slaves out of them. In my county there are so many im-

provements in the house that it lightens the work. I would just as readily marry a farmer as any other man, and I think farmers' wives have just as easy a time as those who marry hired men.

A FARMER'S DAUGHTER.

Perth Co., Ont.

ORANGE MARMALADE.

Dear Dame Durden,—I have been a silent reader of the Ingle Nook Chats for some time, and enjoy them very much. That is the page I always turn to first.

Now, I have a splendid recipe for orange marmalade, which some of the readers might like to try just now, when Seville oranges can be had. It is both better and cheaper than the bought marmalade. To every four oranges, take four pints of cold water, four pounds of sugar and one lemon. Put the quantity of water required into a granite pan; take the skin off the fruit, and cut into very thin strips, and with the fingers shred the pulp into very small pieces; put the pips into a cup and scald; when cold, strain the liquid into water along with fruit, and let stand over night; boil slowly for an hour, or until the rind looks transparent; then add sugar, and boil another hour from the time it begins to boil up the second time.

Manitoba. YORKSHIRE LASS.

RE BUTTER BOWLS.

Greetings to the Ingle Nook readers: I have long been a reader, but not a contributor of the Ingle Nook Chats. Now, I wish to answer "Martha's" query regarding the best kind of a butter bowl.

Without doubt a regular butter-worker, as made by Wortman & Ward, London, is the best, especially if you have much butter to handle, and any handy man can make one. However, should your buttermaking be on a small scale, there is another kind that is a great improvement on the old round bowl. Get a cooper to make you a small hardwood tub with bevelled bottom. For handles, make slots in two of the staves, which should project above the tub proper.

This bowl has three advantages over the ordinary round one: it sits firm on your table, the water runs into the ditch as you work your butter, and it has a flat surface on which to print your butter.

HOLLY.

Oxford Co., Ont.

ANSWER TO MARTHA.

Dear Dame Durden,—May I reply to Martha's query regarding her butter bowls cracking? Butter bowls should not be scoured or even wet on the outside, as the wood swells and in drying cracks. My mother painted a new bowl on the outside with hot linseed or paint oil, and then it could be washed as much as the most cleanly could desire. After a year's wear the coat might be renewed.

Your interested reader,
Carievale, Assa. GIRLIE.

MORMONS COMING TO ALBERTA.

The Calgary Herald of recent date states that the Mormon Church of Utah are the purchasers of the Cochrane ranch, the sale of which was reported in this paper some time ago.

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The best bull of any age and first-prize 2 year-old at Sherbrooke, 1904, were both bought at Hillhurst, and there are some equally good ones among the

9 Reds and Dark Roans

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In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE

THE LEAVENWORTH CASE

By A. K. Green.

CHAPTER XXIV.—Continued.

Never have days seemed so long as the two which interposed between my return from R— and the receipt of the following letter:

Sir,—1. Individuals mentioned, arrived in R— July 3rd, 1875. Party consisted of four: themselves, uncle, and the girl named Hannah. Uncle remained three days and then left for a short tour through Massachusetts. Gone two weeks, during which ladies were seen more or less with the gentleman named between us, but not to an extent sufficient to excite gossip or occasion remark, when said gentleman left R— abruptly, two days after uncle's return. Date July 19. As to habits of ladies, more or less social. They were always to be seen at picnics, rides, etc., and in the ball-room. M—liked best. E—considered grave, and toward the last of her stay, moody. It is remembered now that her manner was always peculiar, and that she was more or less shunned by her cousin. A servant girl, now in the hotel says, however, she was the sweetest lady ever breathed. No particular reason for this opinion. Uncle, ladies and servant left R— for New York, August 7th, 1875.

2. H. C. arrived at the hotel in R—, July 6th, 1875, in company with Mr. and Mrs. Vandervort, friends of the above. Left July 19th, two weeks from day of arrival. Little to be learned in regard to him. Remembered as the handsome gentleman who was in the party with the L. girls, and that is all.

3. F—, a small town, some sixteen or seventeen miles from R—, had for its Methodist minister in July of last year, a man who has since died, Samuel Stebbins by name. Date of decease, Jan. 7th, of this year.

4. Name of man in employ of S. S. at that time, is Timothy Cook. He has been absent, but returned to F— two days ago. Can be seen if required.

"Ah, ah!" I cried aloud at this point in my sudden surprise and satisfaction; "now we have something to work with." And sitting down I penned the following reply:

"T. C. wanted by all means. Also any evidence going to prove that H. C. and E. L. were married at the house of Mr. S. on any day of July or August last."

Next morning came the following telegram:

"T. C. on the road. Remembers a marriage. Will be with you by 2 p.m."

At three o'clock of that same day, I stood before Mr. Gryce. "I am here to make my report," said I.

The flicker of a smile passed over his face, and he gazed for the first time at his bound-up finger-ends with a softening aspect that must have done them good. "I'm ready," said he.

"Mr. Gryce," I began, "do you remember the conclusion we came to at our first interview in this house?"

"I remember the one you came to."

"Well, well," returned I, a little peevishly, "the one I came to, then. It was this: that if we could find to whom Eleanore Leavenworth felt she owed her best duty and love, we should discover who it was that murdered her uncle?"

"And do you imagine you have ascertained this?"

"I do."

His eyes stole a little nearer my face.

"Well!" exclaimed he, "that is good; go on."

"When I undertook this business of clearing Eleanore Leavenworth from suspicion," resumed I, "it was with the premonition that this person would prove to be her lover, but I had no idea he would prove to be her husband."

Mr. Gryce's gaze flashed like lightning to the ceiling. "What?" said he with a frown.

"The lover of Eleanore Leavenworth is likewise her husband," I repeated. "Mr. Clavering holds no lesser connexion to her than that."

"How have you found that out?" demanded Mr. Gryce in a harsh tone that argued disappointment or displeasure.

"That it is not necessary for me to state. The question is not how I became acquainted with a certain thing, but what I assert in regard to it true? I

believe that it is, and if you will cast your eye over this summary of events gleaned by me from the lives of these two individuals, I think you will agree with me." And I held up before his eyes the following:

"During the two weeks commencing July 6th of the year 1875 and ending July 19th, of the same year, Henry R. Clavering, of London, and Eleanore Leavenworth, of New York, were guests in the same hotel. Fact proved by visitors' book of the Hotel Union at R—, New York.

"They were not only guests in the same hotel, but are known to have held more or less communication with each other. Fact proved by such servants now employed in R— as were in the hotel at the time.

"July 19th. Mr. Clavering left R— abruptly, a circumstance that would not be considered remarkable if Mr. Leavenworth, whose violent antipathy to Englishmen as husbands is publicly known, had not just returned from a journey.

"July 30. Mr. Clavering was seen in the parlor of Mr. Stebbins, the Methodist minister at F—, a town about sixteen miles from R—, where he was married to a lady of great beauty. Proved by Timothy Cook, a man in the employ of Mr. Stebbins, who was called in from the garden to witness the ceremony and sign a paper supposed to be a certificate.

"July 31. Mr. Clavering takes steamer for Liverpool. Proved by newspapers of that date.

"September. Eleanore Leavenworth in her uncle's house in New York, conducting herself as usual, but pale of face and preoccupied in manner. Proved by servants then in her service. Mr. Clavering in London; watches the United States mails with eagerness, but receives no letters. Fits up room elegantly as for a lady. Proved by secret communication from London.

"November. Miss Leavenworth still in uncle's house. No publication of her marriage ever made. Mr. Clavering in London; shows signs of uneasiness; the room prepared for lady closed. Proved as above.

"January 17th, 1876. Mr. Clavering, having returned to America, engages room at Hoffman House, New York.

"March 1, or 2. Mr. Leavenworth receives a letter signed by Henry Clavering, in which he complains of having been ill-used by one of that gentleman's nieces. A manifest shade falls over the family at this time.

"March 4. Mr. Clavering under a false name inquires at the door of Mr. Leavenworth's house for Miss Eleanore Leavenworth. Proved by Thomas."

"March fourth?" exclaimed Mr. Gryce at this point. "That was the night of the murder."

"Yes; the Mr. Le Roy Robbins, said to have called that evening, was none other than Mr. Clavering."

"March 19. Miss Mary Leavenworth, in a conversation with me, acknowledges that there is a secret in the family, and is just upon the point of revealing its nature, when Mr. Clavering enters the house. Upon his departure she declares her unwillingness ever to mention the subject again."

Mr. Gryce slowly waved the paper aside. "And from these facts you draw the inference that Eleanore Leavenworth is the wife of Mr. Clavering?"

"I do."

"And that being his wife—"

"It would be natural for her to make what endeavor she could to conceal anything she knew serving to criminate him."

"Always supposing Clavering himself has done anything criminal!"

"Of course."

"Which latter supposition you now propose to justify?"

"Which latter supposition we must now endeavor to prove justifiable."

A peculiar gleam shot over Mr. Gryce's somewhat abstracted face. "Then you have no new evidence against Mr. Clavering?"

"I should think the fact just given, of his standing in the relation of an acknowledged husband to the suspected party was something."

"No positive evidence as to his being the assassin of Mr. Leavenworth, I mean?"

"I was obliged to tell him no, none

which he would call of a positive nature. "But I can show the existence of motive, and I can likewise show that it was not only possible, but probable that he was in the house at the time of the murder."

"Ah, you can!" cried Mr. Gryce, rousing a little from his abstraction.

"The motive was the usual one of self-interest. Mr. Leavenworth stood in the way of Eleanore acknowledging him as a husband, and he must, therefore, be put out of the way."

"Weak!"

"Motives for murders are sometimes weak."

"The motive for this was not. There is not only too much calculation observable in the whole thing, but the manner of it was too cold for the arm to have been nerved by anything short of the most deliberate intention, founded upon the deadliest necessity of passion or avarice?"

"Avarice?"

"One should never deliberate upon the causes which lead to the destruction of a rich man, without taking into account the most common passion of the human race."

"But—"

"Let us hear what you have to say of Mr. Clavering's presence in the house at the time of the murder."

"Well," said I, "if the motive was weak, I fear that you will find this more so." And I related what Thomas, the butler, had told me in regard to Mr. Clavering's call upon Miss Leavenworth that night, and the lack of proof which existed as to his having left the house when supposed to do so.

"That is worth remembering," said Mr. Gryce at the conclusion. "Valueless as direct evidence that he was implicated in this crime, it would be very important as circumstantial." Then in a graver tone than any which he had yet used in his conversations with me, he went on to say, "Mr. Raymond, are you aware that in all this you have been strengthening the case against Eleanore Leavenworth instead of weakening it?"

I could only ejaculate in my sudden wonder and horror.

"You have shown her to be secret, sly, and unprincipled, capable of wronging those to whom she was most bound, her uncle and her husband."

"You put it very strongly," said I, conscious of a shocking discrepancy between this description of Eleanore's character and all that I had preconceived in regard to it.

"No more so than your own conclusions from this story warrant me in doing." Then as I sat silent, murmured low, and as if to himself: "If the case was dark against her before, it is doubly so with this supposition established of her being the woman secretly married to Mr. Clavering."

"And yet," cried I, unable to give up without a struggle the hope I had been cherishing for so long, "you do not, cannot believe the noble-looking Eleanore guilty of this horrible crime?"

"No," said he, slowly; "you might as well know right here what I think about that. I believe Eleanore Leavenworth to be an innocent woman."

"You do? Then what," cried I, swaying between joy at this admission and doubt as to the meaning of his former expressions, "remains to be done?"

Mr. Gryce quietly responded: "Why, nothing but to prove that your supposition is not true."

(To be continued.)

Brown (to Sharpe, who prides himself on his spelling)—"I bet I can give you a word you can't spell."

Sharpe—"I bet you can't."

Brown—"Very well. How do you spell 'need,' meaning to need bread?"

Sharpe (scornfully)—"K-n-e-a-d, of course."

Brown—"Wrong."

Sharpe—"Wrong? You mean to need bread, don't you?"

Brown—"Yes."

Sharpe—"Well, it's k-n-e-a-d, I tell you."

Brown—"Not at all. You k-n-e-a-d dough, but you n-e-e-d bread."

The Briton—Well, 'arguing is 'armless, hafter hall!

The Yankee—You're wrong, friend—huggin' is arm-full.

GOSSIP.

Messrs. John Chambers & Sons, Holdenby, Northampton, England, advertise in this paper high-class Shire stallions and mares for sale. This firm has a well-established reputation as careful and successful breeders of this grand class of draft horses. Canadian importers may do well to correspond with them for particulars, or call on them when in England.

Among the leading young stockmen of Durham Co., Ont., is Jas. Dickson, of Orono, breeder of Tamworth hogs and Dorset sheep. His Tamworths are headed by Elmdale Bruce 3707, sired by Elmdale Ned 2503, a Nichol-bred boar, dam Springbrook Nellie 2391, bred by A. C. Hallman. Some of his sows are by Colwill's Choice 1343, a noted prizewinner. Mr. Dickson has always found ready sale for his pigs at fair prices, and owing to the keen demand for Dorset sheep, he has found it almost impossible to hold stock necessary to increase his flock to a reasonable size. His flock was founded on drafts from the flocks of Col. John A. McGillivray and John Hunter. In addition to breeding pure-breds, Mr. Dickson has been breeding some half-bred Dorsets for the butcher, with which he has been very successful. Growing the latest varieties of seed grain is also made a specialty by Mr. Dickson, and he has always been able to sell the seed through the advertising columns of the "Farmer's Advocate" at very satisfactory prices. When in want of any of the above, write Mr. Dickson, or call and see him. His farm is only about 1½ miles from Newcastle Station on the G. E. R.

The Jersey breeders of the U. S. are already making preparations for the attempt of their lives to push the Jerseys to the front at the forthcoming Lewis & Clark Exposition, at Portland, Oregon, this summer. They have already brought to Portland, in addition to Loretta D. (which is owned there), the following Jersey cows from the St. Louis demonstration: Brown Lassie Duchess 2nd, Eurybia, Ovozan 23rd of the Hood Farm and Zalo of Menlo, Dorinda Darling, Prize May, thereby giving them the first, second, third, fourth and fifth, ninth and twenty-fifth leading Jersey cows at St. Louis.

These cows were brought to Portland by express, and placed on the Crystal Spring Farm, owned by the Ladd Estate, and it is said further that the United States is to be searched by experts for any other fine specimens, and if found will be taken to Portland and there placed in the hands of experts to be prepared for the coming contest.

TRADE TOPIC.

STOCK TONIC AND PROFIT.—The wisdom of feeding a stock tonic at all times of year, especially during the season when stock cannot be on pasture, has been endorsed by leading medical writers and veterinarians everywhere.

The value of bitter tonics for improving the appetite is well known, as also are laxatives for stock on dry feed, and the salts of iron which act as a tonic. These, as well as others in proper combination, are all contained in Dr. Hess Stock Food, endorsed by leading medical colleges and numberless farm and stock papers. Not the least interesting information concerning this celebrated food tonic is the cost. It only takes a shilling's worth per day of Dr. Hess Stock Food to feed fifteen steers, feeding twice a day as directed, two tablespoonfuls at a feed. Compared to the extra cost of feeding Dr. Hess Stock Food, the gain is many times greater, as the food certainly does increase growth and milk production, and also prevents many forms of disease by keeping stock healthy.

The manufacturers give a written guarantee and agree to refund money if it does not increase flesh and milk production sufficient to cover the cost of the food many times over.

If you cannot buy this Stock Food in your own town, and would like to try 100 pounds at \$7, or a 25-lb. pail at \$2, duty paid, write to Drs. Hess & Clark, Ashland, Ohio, U. S. A., who will be glad to give further information about their stock tonic, or the care of the herd.

QUESTIONS AND ANSWERS.
Miscellaneous.

HORSE INSURANCE.

Is there a company in Canada that insures entire horses or other valuable pure-bred animals against death by accident or disease?

Ans.—See answer to similar question on page 480, "Farmer's Advocate" for March 30th, 1905.

AN INOPERATIVE WILL.

Farmer has two children, son and daughter; son dies without wife or heir. Can son leave a will, legally, which will secure what would have been his share in his father's property, to whom or what-soever he desires? FARMER.

Ont.

Ans.—No.

SALE OF APPLES.

A man comes and buys our apples in cellar, takes one load away. He is asked to take the rest, but says the roads are too bad. Then about three weeks after he says he will not take them, as they had been frozen before they were put in. He saw them before he bought them. Can we make him take them, or pay damages? ONT.

Ans.—We think you are legally entitled to damages.

ASSESSMENT OF INCOME.

1. C. P. R. engineer runs between Webbwood and Soo, Ont., has property in the Soo, and pays property tax in Soo. Can income tax be collected from him?

2. Where does he earn his wages, as his run is in several townships between Webbwood and his home?

3. Roadmaster on C. P. R. runs between Sudbury and Soo, Ont., with headquarters at Webbwood. Can he be assessed on income in Webbwood? His family reside in Webbwood, where he is only a tenant. ONT.

Ans.—1. Yes; but assuming that he is a householder in "the Soo," and is assessed as such householder, his income up to \$700 would be exempt from taxation.

2. He is assessable in respect of income in the municipality in which he resides, presumably, Sault Ste Marie, Ont.

3. Yes.

TENANT IN ARREARS.

A house tenant is several months in arrears for rent, and there appears to be very small prospects of his paying voluntarily. We were intending to notify him to vacate the house, in any case, on the 1st of May.

1. What proceedings should we take to compel him to pay the arrears before that date, if we serve him with notice to leave?

2. Are there any seizure exemptions in such cases, and if so, what are they?

3. He put up a small stable at his own expense, on which he has been paying no rent. Can he be compelled to leave it on the property in lieu of payment of rent, or in any case?

4. His son-in-law occupies the house with him, without our consent. Would this affect his full responsibility? ONT.

Ans.—1. You should distrain for the rent already in arrear. It would be necessary to give a warrant to a bailiff for the purpose.

2. Yes; the ordinary exemptions are: bedding, wearing apparel, certain articles of furniture and books, fuel and provisions, a cow, a dog, six sheep, four hogs and twelve hens, tools used in the debtor's occupation, fifteen hives of bees. You will find a more complete and particular list of exemptions in the Revised Statutes respecting "Executions" and "Landlord and Tenant," chapters 77 and 170 respectively. In the latter Act there is provision (Section 32) that a tenant who is in default for non-payment of rent and claims the benefit of the exemptions from distress to which he is entitled under this Act, must give up possession of the premises forthwith, or be ready and offer to do so. See this section particularly as to the landlord's procedure, where he desires to seize exempted goods.

3. Probably not.

4. No.

GOSSIP.

Seven young Shorthorn bulls fit for service, four of them from imported Scotch-bred cows and all by imported sires, are advertised by Messrs. S. J. Pearson, Son & Co., of Meadowvale, Ont., a station on the Toronto and Orangeville branch of the C. P. R., and three miles from Streetsville Junction, C. P. R. Anyone wanting a good young bull of the best of breeding will do well to write for particulars, or call and see these, as the stock and the price will be found to be right.

The character of the Cairnbrogie stud of Clydesdale and Hackney horses, in the hands of Graham Bros., Claremont, Ont., the invincible horsemen, is no less outstanding to-day that at any time during the 26 years since this firm launched out in the horse importing business. That superlative success has crowned their efforts none will deny, and the string of horses now to be seen at their stables are a strictly high-class lot, quite equal in size and quality to past importations. A glance at the breeding of the Clydesdale horses mentioned below will show that nearly all are rich in the blood of such noted sires as Baron's Pride (9122), Up-to-Time (10745), Wood-end Gartley (10663), Prince Thomas (10262), MacGregor (1487), Prince of Albion (6178), Prince of Wales (673), Darnley (222), and others scarcely less celebrated. The invincible sire and show horse, MacQueen, the Chicago World's Fair champion, is still at the head of the stud, and although nearing his 20th birthday, is looking fine, and is a sure getter. Among his colts now at Cairnbrogie are a pair rising two years old. These are MacQueen's Fancy and Gallant MacQueen; the former out of Lady Aberdeen, grandam Mary's Pet (imp.), by Cairnbrogie Stamp, the other, Jess Emerson, by Emerson (imp.) 1387, great-grandam by Prince of Wales. Among the imported stallions is Lord Tinto 11104, rising seven years old, by Prince Alexander 8899, dam Gipsy 14381, by Prince of Wales. Lord Tinto is a big, stylish, dark brown of great substance and good bone and action. His sire, Prince Alexander, won the Cawdor Cup at the Glasgow Stallion Show, also the championship at the H. & A. S. Show. A worthy son of Prince Gallant (6176) is Royal Lad (10435), a nine-year-old, from Jean of Branchal 13295. He is a big, smooth brown, with plenty of substance and fine quality. He has proved very successful in the show-rings in Scotland, winning first at Ruthdown (at Bray), first at Banbridge, and first at Memry, against keen competition, and is said to be an excellent stock-getter. He is extremely well bred, as his pedigree shows. Baron Currie (12445), Vol. 27, is a bay three-year-old, by Baron's Pride, dam Bessie 15454, by MacGregor (1487). He is a big, strong-boned, stylish colt, one of the sort likely to sire high-selling colts. Cadet (12506) (imp.) a brown three-year-old, by Woodend Gartley (10663), dam Sally of Guffoyland 16309, by MacMeekan 9600, grandam by Darnley, has particularly good breeding, is a good size, and should please intending purchasers. West Lothian (12783) (imp.) is a fine, big, handsome three-year-old, by Coroner (10532), dam Bell of Philipstown, Vol. 28, grandam by Prince of Wales 673. This colt comes from a long list of prizewinning ancestors. Bessborough (imp.) (12480), a bay three-year-old, is a big, sound footed horse, by Prince of Bessborough, an uncommonly well-bred horse, by Prince Attractive 10250, dam by MacMeekan, a noted prizewinner. His dam, Jubilee, was by Archduke, by Merryton Prince of Wales. Baron Rutho (12467) is another stylish horse with fine quality of bone, by Baron Robgill (10689), a son of Baron's Pride, out of a prizewinning mare, by Prince Alexander. Carlyle (12515), by King of the Roses (9927), dam Bell of Pumpburn 14162, is a very promising three-year-old brown on good, sound feet and legs and has good style and action. His sire was a very noted prizewinner in Scotland. Lord Onslow (imp.) is a big, growthy horse with excellent underpinning. He should make a valuable horse. He is bay in color, by Baron Robgill 10689, by Baron's Pride, dam by St. Stephen (7231).

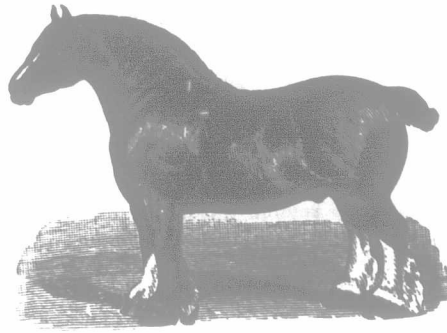
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which from birth are kept in their natural condition, neither forcing nor overfeeding for showing purposes. Canadian buyers visiting England are invited to call and see what we have to show them, and obtain their stallions and mares direct from the men that breed them. No fancy prices, and all delivered free Liverpool landing stage. Correspondence invited. Station—Althorp Park, L. & N.W. Ry.



THE ANCHOR WIRE FENCE

Is the strongest and best farm fence on the market. It is made throughout of No. 9 galvanized steel wire, either plain or coiled, but heavier uprights may be used if desired. Any intelligent person can construct the fence by following directions as given in our free catalogue. Agents wanted.

GATES AND FENCE WIRE FOR SALE.

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Asthma

Cured to Stay Cured

Attacks stopped permanently. Cause removed. Breathing organs and nervous system restored. Symptoms never return. No medicines needed afterwards. 21 years of success treating Asthma and Hay Fever. 58,000 patients. Book 57¢ Free. Very interesting. Write P. HAROLD HAYES, Buffalo, N. Y.

We are informed that the claim of Messrs. Hodgkinson & Tisdale, Beaverton, Ont., for \$2,000 insurance on the champion Clydesdale stallion, Baron Sterling, which died on their hands, has been promptly honored. It is also said he was the first stallion insured in Canada, but of this we are not sure.

Among the up-to-date herds of Shorthorns in Wellington County, Ont., is that of Mr. John Sockett, near Rockwood Station, G. T. R. The herd numbers about 30 head, and is headed by a choice quality, low-down sire, viz., Merry Hampton (imp.) =36068= (156715), by Lord Hampton (70822), a Marr-bred bull, by Wm. of Orange, dam Lady Mary 2nd (imp.) 38268. For thickness of natural flesh on the best selling parts of the carcass, he is equalled by few, especially for thickness of loin. Mr. Sockett has four bulls from thirteen months to two years old, and two about ten months old from this sire for sale, some of them good enough to head any herd, and all or nearly all eligible to record in the American Herdbook. They are reds and roans, their dams being by British General 22602, by British Statesman (imp.) and Statesman 29214, by Indian Statesman 23004, dam Mara 17th 27415, whose full sister went to the Argentina at \$1,000. There are also a nice quality bunch of heifers on hand by Merry Hampton (imp.), and although none of the stock is in high fit, they nearly all have the thick loin and smooth top, and nearly every one is eligible to record in the American Herdbook. Mr. Sockett is also breeding Cotswold sheep, for which he has a large opening in the Western States, where he goes frequently with carloads.

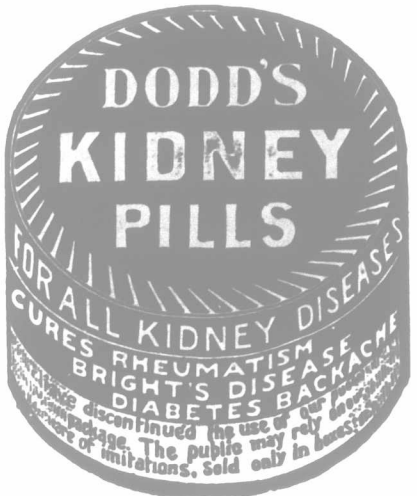
EAR LABELS.—With the pasture season approaching, farmers will be interested in ear labels as a means of designating animals running on commons, roadsides, or wild pastures. These labels are cheap, and are useful in keeping a record of the breeding of pure-bred stock. For particulars, address F. G. James, Bowmanville, Ont.

Mr. Jas. A. Cochrane, Hillhurst, Quebec, in a special advertisement offers for sale young Shorthorn bulls and females, and writes that some promising young calves are coming, by the young bull, Broad Scotch, son of Imp. Scottish Hero (imp.), and Butterfly 49th (imp.). Enquiries are frequent for Shorthorns of good milking strains from different points in the N.-W. T.

WHY HORSESHOES ARE LUCKY. Here is an explanation of the old horseshoe superstition: "St. Dunstan was a skilled farrier. One day while at work in his forge, the devil entered in disguise and requested Dunstan to shoe his 'single hoof.' The saint, although he recognized his malign customer, acceded, but caused him so much pain during the operation that Satan begged him to desist. This St. Dunstan did, but only after he had made the evil one promise that neither he nor any of the lesser evil spirits, his servants, would ever molest the inmates of a house where the horseshoe was displayed."—Ex.

Messrs. Hodgkinson & Tisdale, the enterprising stockmen of Beaverton, Ont., secured the imported Clydesdale stallion, Imp. Royal Baron, from Graham Bros., of Claremont, soon after their great misfortune in losing Imp. Baron Sterling, the champion of America. They have been exceedingly fortunate in getting such a choice horse to take Baron Sterling's place. Royal Baron may be considered the champion now, as he stood reserve to Baron Sterling in the winning. This firm has a bunch of choice mares on hand in the pink of condition that should throw some excellent stock when bred to Royal Baron, and we trust he will be the means of recouping his owners a goodly portion of the loss they sustained in the death of his predecessor.

Mr. Robert Clarke, Ottawa, breeder of bacon-type Chester White hogs, whose advertisement runs in this paper, and a fine photo-engraving of 100 of whose hogs, grown on grass with one feed of grain per day, appeared in the "Farmer's Advocate" of April 14th, 1904, writes: "The long-bacon Chester White hog is growing so popular throughout Canada that last year I was 50 orders short in filling the demands for spring pigs at 8 to 10 weeks old, and had to carry many orders over and fill out of my fall litters. Would say to farmers, order early, if you want this class of pig—the pig that pays a good profit on his keep—as I always ship as per order entered and when ready." For full information, write Robert Clarke, 41 Cooper St., Ottawa.



In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

Worry Goes To the Stomach

Tears Down the Little Telegraph Lines
that Operate and Control the
Digestive Processes.

How to Repair These Telegraph
Lines.

I Will Gladly Give Any Stomach Sufferer
a Full Dollar's Worth of My Remedy
Free to Try.

Ask no deposit—no reference—no security. There is nothing to risk—nothing to pay, either now or later. Any stomach sufferer who does not know my remedy may have a full dollar's worth free, if he merely writes and asks.

I willingly make this liberal offer because Dr. Shoop's Restorative is not an ordinary stomach remedy. It does not, indeed, treat the stomach itself. It goes beyond—it treats the nerves that control and operate the stomach. The nerves that wear out and break down and cause stomach trouble. For stomach trouble is really only a symptom that there is serious nerve trouble inside. That is why ordinary remedies fail. That is why my remedy succeeds. That is why I can afford to make this offer.

Yet do not misunderstand me when I say "nerves." I do not mean the nerves you ordinarily think about. I mean the automatic stomach nerves, over which your mind has no control. I have not the space here to explain to you how the nerves control the stomach, or how they may be vitalized and restored. When you write I will send you a book which will make these points clear. But this much is certain—ailing nerves cause all forms of stomach trouble—indigestion, belching, heartburn, insomnia, nervousness, dyspepsia. No stomach medicine will cure these ailments. Only nerve treatment will do that. No other remedy than Dr. Shoop's Restorative even claims to reach these nerves.

What ails the stomach nerves? Worry, probably. Mental anguish destroys their tiny fibers and tears down the telegraph lines, without which the stomach has no more self-control than a sponge. Overwork will do it. Irregular habits will do it. Overeating will do it. Dissipation will do it. But the effect is the same—stomach failure.

No matter how these nerves became impaired—I know a way to rebuild their strength—to restore their vigor. It is a remedy which took thirty years of my life to perfect—a remedy which is now known in more than fifty thousand communities—in more than a million homes—as Dr. Shoop's Restorative.

If you have stomach trouble and have never tried my remedy, merely write and ask. I will send you an order on your druggist, which he will accept as gladly as he would accept a dollar. He will hand you from his shelves a standard-sized bottle of my prescription, and he will send the bill to me. This offer is made only to strangers to my remedy. Those who have once used the Restorative do not need this evidence. There are no conditions—no requirements. It is open and frank and fair. It is the supreme test of my limitless belief. All that I ask you to do is to write—write to-day.

For a free order for a full dollar bottle you must address Dr. Shoop, Box 52, Racine, Wis., state which book you want.

Book No. 1 on Dyspepsia.
Book No. 2 on the Heart.
Book No. 3 on the Kidneys.
Book No. 4 for Women.
Book No. 5 for Men (sealed).
Book No. 6 on Rheumatism.

Mild cases are often cured by a single bottle. For sale at forty thousand drug stores.

Dr. Shoop's Restorative CORN THAT WILL GROW

Canadian grown Seed. White Cap Yellow Dent, testing 92 to 100; Leaming, testing 88 to 94; North Dakota, testing 90 to 94; Eight-Row Yellow Flint, testing 94 to germinate. Write for price list.

DUKE & BRUNER, - Ruthven

Try my
Brood Mare Special

now for all mares that gave you trouble with weakly foals in former years, and get a good strong, healthy foal. It must be used one month before foaling time. Price, \$1.50 per package. Address:

J. WILHELM, V. S., Shakespearé, Ont.
**CLYDESDALE and SHORTHORNS
For Sale.**

One first-class registered 2-year-old stallion, sire MacQueen, Imp.; dam from imp. sire and dam. Also one red 16-months-old bull by Imp. Royal Sovereign, and a few heifers bred to Scotland's Fame. At a bargain if taken soon. For particulars write to

JOHN FORGIE, Proprietor,
Claremont Stn. and P. O.

QUESTIONS AND ANSWERS. Miscellaneous.

WOODBURN CORN.

How does Woodburn corn compare with other varieties for ensilage, and where could I get seed? R. H. Perth Co., Ont.

Ans.—We are not familiar with this variety. Inquire of the seed firms advertising in the "Farmer's Advocate." There is seldom anything gained, though, and often much lost by running after uncommon varieties.

THICKNESS OF SEEDING WRINKLED PEAS.

Is it better to sow more per acre of wrinkled kinds of peas than of the smoother? Some say the wrinkled kinds. SUBSCRIBER.

Ans.—It might be advisable. The wrinkled peas are the richer, but they are more likely to decay in cold, wet ground, and are, therefore, not so well adapted to early spring planting. Most of the very early sorts of garden peas put upon the market are of the smooth kind.

CEMENT TANK AND DRIVEWAY.

1. I am going to build a cement water tank under basement of barn, 8½ feet high, 3½ feet wide. I would like some of your readers, who have had experience with cement tanks, to tell me what length it should be to water all stock on an ordinary hundred-acre farm; also thickness of walls, and how to bind corners.

2. I am going to cover a root-house, which will be under the driveway, with two ply of two-inch cedar plank with a coat of mortar between, then cover with a mixture of gravel and coal tar. Could any of your readers suggest a better way? Root-house 16 x 36 feet, and no building over it. M.

Ans.—To give an estimate, the source of water supply should be known, whether well or windmill or barn roof. If the former, an inside dimension of 8½ x 3½ x 10 feet should be sufficient. As thickness of walls, we would suggest 6 inches at bottom and 4 at top, walls being plastered inside with cement. A few strands of wire should be built into the wall, and at the corners, pieces of scrap iron, such as old wagon tires, bent to a right angle, would help to hold the corners.

2. Why not build a concrete roof, as described on page 140 of the "Farmer's Advocate," January 26th, in answer to P. J. B.?

At the auction sale on April 4th of a draft of Shorthorn cattle from the herd of Mr. H. F. Brown, Minneapolis, Minn., an average of \$185 was realized. Bapton Countess made the top price on females, going to W. I. Wood, Williamsport, Ohio, at \$430. Several others sold up to \$400, which was the top price for a bull.

Aberdeen-Angus cattle are steadily becoming more popular in Canada as well as in the United States. Wellington Co., Ont., has several small herds, among them being that of Mr. Geo. Davis, at Alton P. O. and Station, on the Owen Sound branch of the C. P. R., and a few miles from Erin Station, C. P. R. This herd has been bred with an eye to improvement, the best sires being used. Several of the young things are by Robin of Tweedhill 46196, a Sharp-bred bull, by Britannia of Willow Grove 32850, dam Hemptie of Tweedhill 31213. Robin of Glengore 77629, born April, 1904, is a choice calf by the above sire, and from Brunette S. 14408. This is a lengthy, smooth-topped fellow that should make a first-class sire. The stock bull now in the herd is Hamilton Boy, by Bruno 3rd (Imp.) 34506, dam Imp. Questra 33802. This bull is well bred, being of the Drummuir Carskie tribe. Mr. Davis has a few calves by him, and they are coming good. One worthy of special mention is from the same dam as Robin of Glengore. He is only a few months old, but of great promise, and from a grand milker and breeder, now fifteen years old; she is also the dam of Queen Easter of Glengore 53475, which won two prizes at the Winter Fair, Guelph, 1903. She also has a bull calf at foot. There are several others in the herd equally well bred with calves at foot by Hamilton Boy. This herd has never been shown, excepting at local fairs, where they have been able to take a good share of the prizes. Write Mr. Davis for prices, he will use you well.



A Metal-Clad Residence

About two years ago, we erected several dwellings, using 2x4 balloon frame construction covered inside and outside with our Sheet Metal goods. These buildings have attracted a lot of attention and induced many to adopt similar construction.

The above cut was made from a photo of one of these buildings, which cost \$1,000.00 to build. It is finished on the outside with Rock-Faced Stone and Rock-Faced Brick, with "Safe Lock" Shingles on the roof. A great many farmers are adopting similar constructions, finding them low in price, attractive in appearance, comfortable and durable, and providing great protection from fire and lightning. By using our Galvanized goods, no painting is necessary.

If you are thinking of erecting a new building, would like to tell you all about our goods; or if your old building requires repairs, or you would like to make it warmer, we can help you at very small expense, and will send full particulars free. In writing us, explain what you require so that we can give your needs careful consideration and make you an intelligent proposition.

See our advertisements in two previous issues, and write us about your intentions in reference to new buildings or repairing old ones. This is the time of the year to fix up your broken plaster ceilings and walls with our handsome Embossed Metal Ceilings. They can be put on right over the old plaster. Ask for our free catalogue.

Metal Shingle & Siding Co., Ltd.,

Dept. 8, PRESTON, ONT.



A Sure Money Maker On the Farm

When you buy a Cream Separator you cheat yourself if you don't get the machine that makes and saves the most money for you. Cream, repairs and oil—all represent money.

The United States Cream Separator

holds the world's record for clean skimming—saves cream every day that other separators lose.

Substantial and simple—extremely durable. No joints to work loose, no ratchet pin to break off, no exposed gears to be injured—no repairs.

Perfect adjustment of working parts—no oil wasted.

You can't make your cows pay you as they should without a U. S. Cream Separator. Write for free illustrated catalogue to-day.

The Vermont Farm Machine Company BELLOWS FALLS VERMONT

Warehouses at Chicago, Minneapolis, Omaha, La Crosse, Wis., Sioux City, Ia., Kansas City, Mo., Salt Lake City, Utah, San Francisco, Cal., Portland, Ore., Buffalo, N. Y., Portland, Me., Montreal and Sherbrooke, Que., Hamilton, Ont. Address all letters to Bellows Falls, Vt.

TO SECURE THE BEST RESULTS

Place an Ad. in the Farmer's Advocate

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

Last Mountain Valley

Steamboat Service On the Lake.

S. S. Queen City and S. S. Silken Dale will make regular trips with freight and passengers.

Railway in Operation This Summer.

WRITE FOR FREE MAPS, BOOKS, ETC.



The Finest Wheat Land in North-east Assiniboia.

Average crop for 5 years
25 bushels per acre. . . .

Wm. Pearson & Co.,

WINNIPEG.

POULTRY AND EGGS

Condensed advertisements will be inserted under this heading at two cents per word each insertion. Each initial counts for one word, and figures for two words. Names and addresses are counted. Cash must always accompany the order for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisement inserted for less than 50 cents.

BARRED and Buff Rock, Brown Leghorn eggs, 50 cents setting. Cockerels prizewinners. G. L. Brownville, Ont.

BUFF Orpington eggs—Exhibition stock, \$2 per 15; utility stock, \$1 per 15; extra heavy layers; nine chicks guaranteed. Hugh A. Scott, Caledonia, Ont.

BUFF ORPINGTONS. At Central Canada Exhibition my Orpingtons won ten prizes; and again at Eastern Ontario Exhibition they won 9 prizes. Eggs, \$3.00 per 15. A. W. E. Hellyer, Ottawa, Ont.

BUFF Orpingtons—Eggs from selected stock, \$1.50 per dozen, \$7.50 per 100. F. S. Weherall, Rushton Farm, Cookshire, Que.

BUFF ORPINGTONS only. Cook's strain. Strong fertile eggs from pen of fine utility stock. \$1 per 15. A. Cole, Grafton.

BUFF Orpington eggs, \$1 per 15, \$5 per 100. E. Brown, breeder and importer, Haysville, Ont.

BUFF Orpingtons—Pure Willow Brook Farm strain. Bred true to type, to produce winter eggs. Eggs, \$2 per 15. W. O. Burgess, box 48, Queenston, Ont.

BARRED Rocks exclusively. Eggs from prize stock, \$1 setting; fifty, \$2.50; per hundred, \$4. Miss Emily Spillbury, Colborne, Ont.

EGGs for hatching—Single-combed White Leghorns and Buff Wyandottes, \$1 per 13. George Lewis, Ballymote, Ont.

EGGs for hatching—Barr d Rocks, Buff Orpingtons, White and Silver Wyandottes, \$1 per 15, Black and White Orpingtons, \$5 per 15. Prizewinning birds in all these pens. F. W. Krouse, Guelph, Ont.

EGGs from prize-winning strains. Barred, White and Buff Rocks, Silver-laced and White Wyandottes, Single-combed White and Brown Leghorns, Silver-spangled Hamburgs, \$1.50 per 13. Pekin and Rouen ducks, \$1.50 per 11. Thos. T. Sayles, Spruce Lane Poultry Yards, Paris, Ont.

EGGs from imported and prizewinning. Barred and White Rocks, White and Brown Leghorns, White Wyandottes, Buff Orpingtons, Black Minorcas. Write for prices. William Manley, Brigidon, Ont.

EGGs for hatching—From a pen of Barred Rock hens, "National Strain," selected for their choice barring and persistent-laying qualities; mated with two large, healthy, well-marked cockerels. Price, \$1 per setting, or 3 settings for \$2. W. C. Shearer, Bright, Ont.

FARM RAISED, prize-winning Buff Orpingtons, W. Rocks, Rose-comb White Leghorns, Bronze turkeys. Eggs, \$2 per setting. Wm. A. Rife, Hespeler, Ont.

LARGE Snow-White Wyandottes, Baldwin strain, great winter layers, strongly-fertilized eggs, \$1.50 per 15. Incubator lots special. Chas. A. Gouling, Vinemount, Ont.

LARGE farm range Barred Rocks, sired from recent New York and Ontario winners. Unsurpassed for winter layers. Eggs, \$1.50 per setting. John Hicks, Burford, Ont.

ORPINGTONS—Buff, Black, White. Why not have the very best obtainable? First cost may be a little more, but you get the stock and blood from the grandest winning strain in America, and from the largest Orpington breeder. Send for 40-page illustrated Orpington catalogue, also Mating List describing thirty-two breeding yards and prices of eggs. The blood from the largest winners at New York the past three years are in these yards. Box 74, Willow Brook Farm, Berlin, Conn.

PRIZEWINNING Buff Orpingtons Eggs, \$2 per setting. C. Lin Blyth, Marden, Ont., member Canadian Orpington Club.

SNEELGROVE Poultry Yard. Barred Rocks exclusively. Canada's Business Hens. Eggs for hatching \$1.00 per setting; 3 settings \$2.00. W. J. Campbell Sneelgrove, Ont.

SINGLE-COMB White and Buff Leghorn eggs for hatching from strictly first-class stock. Winners at Hamilton, London and Guelph. Guaranteed good fertile eggs, \$1 per 15, \$5 per 100. Delaware Poultry Farm, James Ghent, Collingwood.

THE National Strain Barred Rocks—Eggs from choice matings, \$1 per 13. Geo. McCormack, Rockton, Ont.

WRITE for prices on Barred Rock eggs from winning stock. Thos. D. Smith, Hickson, Ont.

WHITE WYANDOTTES—Second Ontario cockerel heading first pen. Write for eggs Aaron Witmer, Berlin, Ont.

WHITE Wyandotte and Buff Orpington eggs \$1.50 per setting. Cash with order. C. W. Heaven, "Pinegrove," Prescott, Ont.

WHITE WYANDOTTE eggs. Pen headed by grand Duston cockerel. W. D. Monkman, Bondhead, Ont.

WHITE Wyandotte eggs, from fancy and grand winter-laying strains, mated to imported Duston and Martin cockerels; large size and perfect shape; \$1.50 per 15. Incubator eggs special. James Smith, Trout Creek Farm, Millgrove.

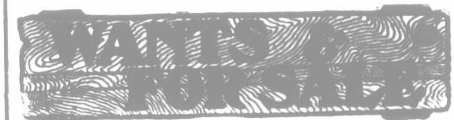
WHITE Wyandotte and Buff Orpington eggs, \$1.50 per setting. Cash with order. C. W. Heaven, Pinegrove, Prescott, Ont.

WHITE Wyandotte eggs, imported Duston's and Martin's strain; grand winter layers. Stay white. H. Hulse, Bradford, Ont.

WHITE Rock eggs, from best pen, \$1 per setting, \$5 per 100, \$2.50 per 50. Fine stock, pure white. Jacob M. Mower box 47, Campden.

WHITE Wyandottes—The Farmers' general-purpose fowl. Eggs from first-class stock, \$1 per 15. Daniel T. Green, Brantford.

220—EGG Chatham Incubator and two Brooders Address: Box 332 Glenora, Ont.



Advertisements will be inserted under this heading, such as Farm Properties, Help and Positions Wanted, and miscellaneous advertisements.

TERMS—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

PENNSYLVANIA Dairy to lease—First-class opening for good dairyman. The owner of 300-acre dairy farm, close to large manufacturing city, wishes to retire, and will lease the whole dairy, in running order, to the right man. Location in Pennsylvania, near Pittsburgh. A successful dairyman with good character and business ability preferred. Address, "Penn. Dairy," care Farmer's Advocate, London, Ont.

FOR SALE—200 acres, including both wild and improved farm lands; also in the celebrated Moose Mountain District. Prices ranging from \$9 to \$25 per acre. D. C. McFee, Carlyle, Assa.

FIRST-CLASS farm for sale at a bargain—100 acres clay loam by deed, 110 acres by measure; well-fenced and tile-drained; 400 rods of wire fence, new, over 10,000 tile; good frame house, large frame barn and other buildings, all new. Five acres of timber, twelve acres pasture, 53 under cultivation, all well improved. Will sell cheap if sold at once. Lot 22, Con. 5, Chatham Tp. Apply on premises, or to Adna Pheerill, Kent Bridge, Ont.

GINSENG—Canadian roots best. Write E. Beattie, Highgate.

LAND for sale—Improved or unimproved, in the famous Moose Mountain District. Six to fifteen dollars per acre; easy payments. Geo. Kellett, Carlyle, Assa.

Wanted—A purchaser Breeding Bull. "Imp. Pride" (78853) = 36032 =. Sire, the Pride of Morning bull. Pride of the Realm, a Royal Northern winner. Dam, a Buchan Lassie. He is a good bull at a reasonable price. Particulars from W. J. RIGGINS, Elmhurst Farm, Clinton Ont.

Trotting Stallion Handsome; quarters in 35 seconds; never was trained; will do to race. Great sire, his get are selling from \$200 to \$750 each, and pairs from \$350 to \$700. Will sell right. DR. E. C. COATES, Thamesville, Ont.

Clydesdales. Present offerings: 2 Clydesdale stallions, 1 and 2 years old; by MacQueen; one yearling bull by Imp sire; also some yearling pairs. For price and particulars write to W. D. PUGH, Claremont, Ont.

GOSSIP.

Messrs. Bell Bros., Bradford, Ont., breeders of Shorthorns, write: "Our stock have wintered well. Our Shorthorns are bred from such noted families as the Stamfords, Rosebuds, Miss Ramdens, Strathallans, Strawberrys, etc. Have for sale some nice young cows with calves at foot, by Queenston Archer, also some choice heifers by Heir-at-Law = 34563 = and Gladiator (Imp.) 32004. Our stock bull, Queenston Archer, by Derby (Imp.), and out of Veronica (Imp.), by Brave Archer, is leaving some grand calves, which will make their mark in the showing."

Mr. Arthur Johnston, of Greenwood, Ont., changes his advertisement in this issue. He reports sales of seven very fine young bulls during the past few weeks, most of them fit to head first-class Shorthorn herds, both in quality and breeding. He says: "We have still a good lot fit for immediate service, as follows: one five-year-old imported roan bull of most fashionable Scotch breeding; one four-year-old imported red-roan bull, equally fine Scotch breeding; one three-year-old roan bull, and two yearling imported red bulls. Besides these imported bulls, we have a capital-bred Crimson flower bull, now 22 months, roan in color, a first-class bull and a fine breeder. Probably one of the best bulls in the herd is a fourteen-months dark roan Bessie bull, clear imported Scotch, of the richest breeding. Besides these, we have a number of younger bulls from imported sires and dams, four of them fit for service immediately."

SUGAR-BEET PROSPECT IN S. ALBERTA.

The Knight Sugar Company has secured contracts with the farmers along the St. Mary's line for 4,500 acres of sugar beets this season, and seeding operations will soon commence. This is one-third more than was planted last year, and as greater care is being taken in the preparation of the soil this year than ever before for this crop, the tonnage is expected to easily double that delivered last fall, when three million and a quarter pounds of sugar were manufactured. This company has at the present time 250 head of beef stock fattening on the beet pulp stored in the big silo of the factory, affording a practical demonstration to the stockmen of the value of this by-product as a finishing food. Experiments here and at the sugar-beet factories across the line show that a steer cannot eat more than a hundredweight of the pulp daily, which at the present selling price of 50 cents a ton makes the feed-bill 24 cents a day. At the American factories, the pulp is sold at \$1 a ton, and the supply is invariably contracted for early in the summer, as the stockmen find that even at \$1 a ton, pulp is the cheapest fattening feed they can secure. As yet the farmers here have not taken advantage of the opportunity of buying this pulp, but many will do so this fall.

Chicks without Lice

If you will sprinkle the setting hen and nest thoroughly with Instant Louse Killer, we will positively guarantee your brood to come off free from lice.

Instant Louse Killer

Is also equally effective in destroying lice on stock and ticks on sheep, doing its work quickly in every case. It also kills bugs on cucumber, squash and melon vines, cabbage worms, slugs on rose bushes, etc., besides being a powerful disinfectant and deodorizer, thereby destroying many forms of disease. Instant Louse Killer is the original powder Louse Killer, put up in round cans with perforated top. Beware of the word "Instant" in the can—it has twenty-five limitations.

1 lb. 35 cents.
3 lbs. 85 cents.

If your dealer cannot supply you, we will forward 1 lb. by mail, postage paid, 35c.
Sold on a Written Guarantee.
Manufactured by
DR. HESS & CLARK,
Ashland, Ohio, U. S. A.

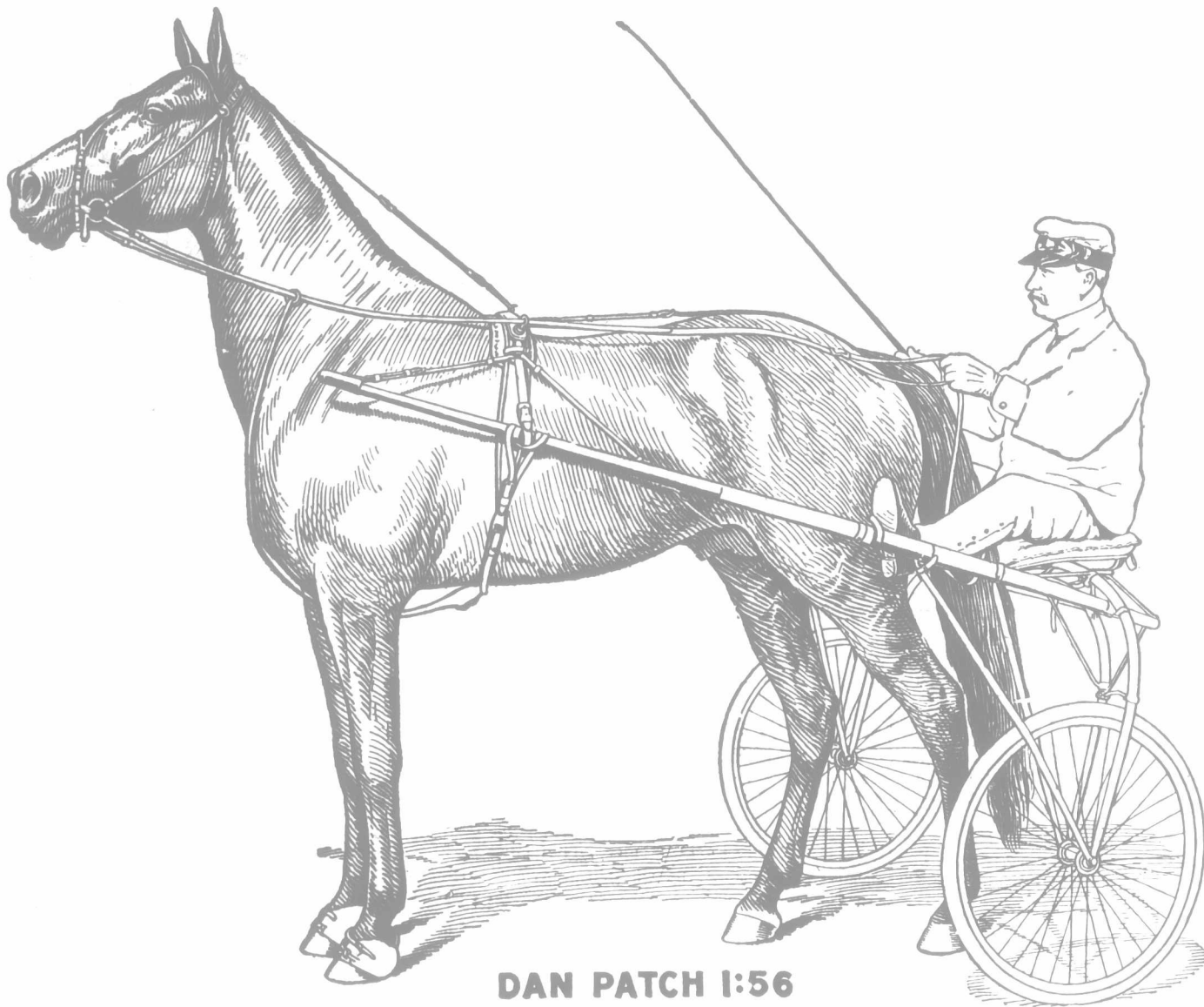
Eggs for Hatching
From the very best of stock and careful breeding. Barred P. Rocks, White, Silver-laced and Partridge Wyandottes, Buff Orpingtons, Eggs, \$1 per 13. Mammoth Bronze turkey eggs, 30c. each, or \$2.50 per 9 eggs. The above stock is in excellent condition, and will produce a good percentage of show birds.
D. A. GRAHAM, Thedford, Ont.

MY BARRED ROCKS and BUFF ORPINGTONS are famous for laying, size, and coloring. Healthy, vigorous, scientifically fed and mated. Eggs, \$2. During April express paid. Carefully packed.
R. K. V. A. E. SANDERSON, Chesterville Ont.

PRICE LIST.
McDOUGALL'S SHEEP DIP
Liquid, Paste and Solid.
20 oz. tin, liquid, 35c.; 4 gal. tin, liquid, \$1.25;
1 gal. tin, liquid, \$2.25; 20 oz. tin, paste, 35c.;
5 lb. tin, paste, \$1.25; 10 lb. tin, paste, \$2.25;
1 lb. block, solid, 25c.; 5 lb. block, solid, \$1.00.
Sold by druggists and dealers, or charges prepaid on 1 gal. or 10 lbs.
THE WORTHINGTON DRUG CO., Guelph, Ont.,
General Agents.

The **Liver Regulator** for ladies is 8c a tin. Best for men, 6c a tin. 25c. box, 5 for \$1, postpaid. Booklet free.
SATIS BERRY CO.,
Box 156, Galt, Ont.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.



DAN PATCH 1:56

BEAUTIFUL COLORED PICTURE OF DAN PATCH MAILED FREE

PRINTED IN SIX BRILLIANT COLORS. SIZE 28 BY 22 INCHES. The Picture we will send you is a large reproduction of the above engraving, printed in six brilliant colors, without any advertising. It is the finest picture of this famous pacing stallion in existence and is worthy of a place in any home. If you are a lover of horses you want this picture to frame.

MAILED FREE WITH POSTAGE REPAID

WRITE US AND ANSWER THE FOLLOWING QUESTIONS—

1ST. HOW MUCH STOCK OF ALL KINDS DO YOU OWN. 2ND. NAME THIS PAPER.

ADDRESS THE OWNERS AT ONCE **INTERNATIONAL STOCK FOOD CO., TORONTO, CAN.**

"3 FEEDS FOR ONE CENT"

DAN PATCH RESTORED TO HEALTH IN SIX WEEKS.

DAN PATCH GIVEN UP TO DIE
Office of the Kansas City Veterinary College, 1330-36 East 5th Street.
ROBERT C. MOORE, D.V.S., PRES. HENRY C. BARCOCK, M.D., D.V.S., V-PRES.
BENJAMIN F. KNAPP, D.V.S., V-PRES. SISCO STEWART, M.D., V.M.
M. W. SAVAGE, Minneapolis, Min. Secy and Treas. and Dean of Faculty.
Dear Sir:—I first saw your horse Dan Patch about 10 a.m. Sept 13th 1904. He was suffering severe pain in the abdominal regions caused by impaction of the bowels probably caused by eating oat chaff. His pulse rate was 72 per minute and his temperature 103. The character of the pulse was weak. The condition gradually grew worse during the afternoon until about 4 p.m. the pulse rate had reached more than 100 and his temperature was 105. The heart grew so feeble that the pulse could not be taken at the jaw and the rate could not be determined by listening to the heart beats. A cold perspiration covered the entire body much of the time and the pain was almost continuous. The visible mucous membranes were highly injected, which with the high temperature showed undoubted evidence of the inflammatory condition existing in the abdominal cavity. At this time owing to the inflammatory condition and the extreme weak heart, the prognosis was very unfavorable. From 4 to 6 p.m. I had little or no hope of his recovery. About 7 p.m. a slight improvement was noticeable and his condition gradually improved. Very truly yours,
K. C. MOORE, Fritchard & Kniesley. K. C. MOORE, D.V.S.

HIS WONDERFUL RECOVERY
In four days from the time he was given up to die by three high-class Veterinary Surgeons we shipped Dan Patch from Topeka to our "International Stock Food Farm" at Savage, Min., and commenced feeding him three times the usual quantity of "International Stock Food" and giving it to him four times per day. He received his strength very rapidly and in three weeks from the first day of his sickness he paced a mile at Springfield Ill., in 2:04. This was in the face of a cold wind and over a track that was not in shape for extreme fast miles. Dan was shipped from Springfield to Memphis and in six weeks from the date of his sickness he astonished the world by pacing a mile in 1:56 without wind shield. "International Stock Food" is a remarkable vegetable preparation to give permanent strength to the entire system as well as being a great aid to digestion and assimilation. It is used and endorsed by a majority of the great trainers and is in constant use on most horse-breeding farms.
Dan Patch has been fed "International Stock Food" every day since we bought him two years ago for \$6,000. Since that time Dan has broken 7 world's records and has been extra strong and vigorous. Owing to his great constitutional strength he was able to withstand his severe sickness. You could not ask better proof of the superior merits of "International Stock Food" which you can feed at a cost of
3 FEEDS FOR ONE CENT.

INTERNATIONAL STOCK FOOD CO., TORONTO HIGH RIVER SCHOOL OF AGRICULTURE, High River, Alta.
Dear Sir: I thank you for your letter of the 15th., and for all the trouble you have taken to bring the "International Stock Food" to notice. The merits of the food for horses in a poor condition were not unknown to me before your communication came to hand, but I had not given it close attention as a possible medicine for other animals in trouble. A recent trial of the food with a pen of pigs suffering from what I diagnosed as "Erysipelas Plague" certainly proved most successful. After losing two hogs within three days out of a pen of seven I commenced feeding your Stock Food liberally to the remainder, all of which had refused to eat the ordinary food and were sick. On the fourth day a third hog died, but the remaining four rapidly recovered and are now well. I took the precaution to feed "International Stock Food" to all the pigs on the farm and in adjoining pens during this outbreak, and quite believe have saved myself from serious loss by using your remedy. I am dear sir, Yours Faithfully, (Sgd.) O. H. HANSON, Director.

YOUR MONEY BACK IF THEY FAIL TO CURE

If "International" Preparations were not up to the standard we could not afford to make such an offer. We hereby agree to forfeit \$1000.00 if we ever fail to do as we say.

- "International Stock Food" "International Heave Cure" "International Hoof Ointment" "International Silver Pine Healing Oil"
- "International Poultry Food" "International Colic Cure" "International Pheno-Chloro" "International Quick Cleaner"
- "International Louse Killer" "International Harness Soap" "International Compound Absorbent" "International Distemper Cure"
- "International Worm Powder" "International Foot Remedy" "International Gall Cure"

Prepared and Sold on a "Spot Cash Guarantee" by **INTERNATIONAL STOCK FOOD CO., Toronto, Can.**

Steel Roofing and Siding, \$2.00 per 100 Sq. Ft.

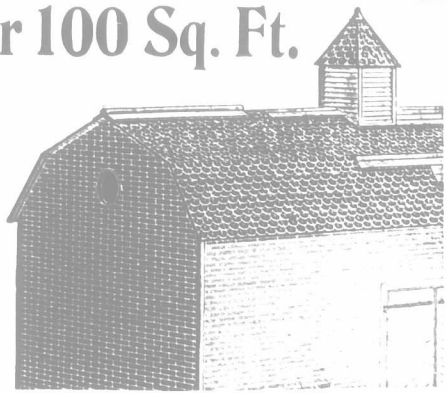
Painted red on both sides. Most durable and economical covering for Roofing or Siding, for Residences, Houses, Barns, Elevators, Stores, Churches, Poultry Houses, Cribbs, etc. Easier to lay and will last longer than any other covering. Cheaper than wood shingles or slate. No experience necessary. A hammer and snips are the only tools required. It is semi-hardened high grade steel. Brick or Stone Siding at \$2.00 per 100 Square Feet. Pedlar's Patent Steel Shingles at \$2.50 per 100 Square Feet. Also Corrugated Iron, Painted or Galvanized, in sheets 96 inches long. Beaded and Embossed Ceilings. Crimped Roofing. 2000 designs of Roofing, Siding and Ceilings in all grades. Thousands of buildings through the Dominion covered with our Sheet Metal Goods making them

FIRE, WATER AND LIGHTNING PROOF.

Send in your order for as many squares (10 x 10 feet) as you require to cover your new or old building. The very best roofing for this climate. We can supply Eave Trough, all sizes, Corrugated or Plain Round, Conductor Pipes, Shoes, Elbows, Spikes, Tubes. All goods shipped day after order is received. We are the largest concern of the kind under the British Flag. Established 1861. Capital Invested \$150,000.00.

PEDLAR PEOPLE, OSHAWA, ONTARIO, CANADA.

Eastern Warehouse—767 Craig St., Montreal, Quebec.



In answering any advertisement on this page, kindly mention the **FARMER'S ADVOCATE.**

QUESTIONS AND ANSWERS. Veterinary.

MARE VICIOUS WITH HER FOAL.

Mare would not own her foal last year. She is in foal again. If she is vicious with foal again, what can I do, and if I do not succeed, how should I feed it?
H. J. M.

Ans.—In some cases if the foal is sprinkled with salt, it has the effect of reconciling the mare. It is stated that rubbing the foal and the head, nostrils and lips of the mare with brandy has a very salutary effect on the mare. These could be tried, and if they fail, a twitch should be applied on the mare each time the foal needs nourishment, and it is probable the mare will soon become quiet. In the meantime, of course, the foal must be removed between times if there is danger of dam injuring it. If all fail, take new milk from freshly-calved cow, dilute it with its own bulk of water at 100 degrees Fahr., add a little brown sugar, and give to the foal. Feed a little at a time and often at first, and gradually increase the quantity and lessen the number of times, until three or four times daily will do.
V.

Miscellaneous. WIREWORMS.

I have about four or five acres of high land infested by wireworms. What is the best remedy, and how should I apply it? I have heard salt is good, but do not know how much to use to be beneficial. I intend to sow the land in oats. Soil is clay loam. NEW SUBSCRIBER.

Ans.—Years of thorough experimenting at Cornell failed to find a satisfactory field remedy. One important fact learned, however, was that the imagoes (mature insects) are very tender when first developed in the pupal cells, and plowing in the fall is liable to destroy many of them. As the larvae, however, which cause the damage, pass several years in the larval stage, those remaining in the ground still work havoc to the next and even succeeding season's crop. Fall plowing and short rotation are the best means of combating the pest. Salt has a tendency to drive the worms down into the ground, and thus give the plants a chance to make headway and withstand the attack. Two hundred or 300 lbs. per acre is advised as a mangel fertilizer, and you might try that quantity on your oat land.

LAND PLASTER AS A FERTILIZER.

Have wheat sown on clay and on sandy loam, has wintered well, but land is not as strong as would like to have it. Would you advise sowing land plaster? If so, how much per acre, and best time to sow; also what benefit would it be to red clover?
A BEGINNER.

Ans.—Land plaster or gypsum consists of sulphate of calcium, and is of very limited value, though it is of some benefit to turnips and to clover, which require a considerable amount of sulphur. On virgin soils, it is said that gypsum frequently has a marked effect on clover. Sown at the rate of 200 to 300 lbs. per acre. Its best use is in the stables and on manure piles to hinder the volatilization of ammonium carbonate.

PIG PEN AND BARN PLANS—FEED BOILER—SPRING WHEAT.

1. Could you give a plan of a pigpen 20x32 feet?
2. Would it be advisable to have a feed boiler in the pen, or have it in a separate building?
3. How would spring wheat grow on clay land?
4. Could you give me a plan of a basement underneath a barn 36x56 feet?
Elgin Co., Ont. G. M. J.

Ans.—1. See plan in issue of March 23rd.

2. Why occupy space with a boiler? Neither experiment nor practice shows boiling to be beneficial, except in case of potatoes, or for heating water in winter. There is no objection to having boiler in same building, if made safe from fire and partitioned off. Otherwise the steam causes dampness.

3. Clay land is adapted to spring wheat, but in Western Ontario fall wheat gives larger yields.

4. See previous issues, particularly March 23rd, referred to above. In these are suggestions from which you should be able to adapt a plan better suited to your requirements than any we might propose.

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QUESTIONS AND ANSWERS.
Miscellaneous.

RENNET-COLORING MATTER, AND SALT FOR CHEESE.

1. How much extract of rennet will it require to make twenty hundred pounds of milk into cheese?
2. How much coloring and how much salt will be required for that amount of milk used, in the proportions used by factories?
SUBSCRIBER.

Ans.—1. Six to eight ounces.
2. Two to three ounces coloring, and three to five pounds salt; three pounds if you want a fast-curing cheese.

TO PREPARE COCOA SHELL FOR CALVES

Would you please let us know how to prepare cocoa shell for calves, and also state what quantity to use at a time?
G. E.

Ans.—A correspondent of the "Farmer's Advocate," of Feb. 16th, 1903, thus described his method of preparing cocoa shells: Put about a quarter of a pound of the shells into a kettle holding about two gallons of water. Bring to a boil, and simmer for two hours or more on the back of the stove. Pour off enough for one meal, sweeten with sugar until it is about the same as new milk, then add a pint of skim milk, or less, if that amount cannot be spared. Put a little more shells into the kettle, and boil and simmer as before for the next meal. Cocoa shells are very rich in albuminoids and fat, and a decoction makes an excellent substitute for milk. The correspondent stated that 20 lbs. of coconut shells, with the addition of 5 lbs. linseed meal, fed a fine calf until weaning time, at an outlay of 85 cents.

TO KNOW WHETHER EGGS ARE PURE BRED—GRISTING—TOLL LAW.

1. How can I know when I send to get fowl or eggs from a distance whether they are the product of pure-bred fowl or not?
2. Is there any law governing the number of pounds a miller should take as toll when gristing wheat, and if so, how much?
3. When our wheat does not come up to the standard and consequently will not produce the proper amount of flour that a bushel of wheat should, can we compel the miller to make up the weight in bran and shorts for the lack in the flour?
SUBSCRIBER.

Ans.—1. Your only assurance is the reliability of the seller. When the chicks are grown, you can tell pretty nearly by their conformity to breed standard in color, markings, comb, size, shape, etc.
2. No; we are informed that there used to be such a law, however.
3. No.

CEMENT FLOOR.

1. How much cement will it take to floor a stable, 46 x 56 feet?
2. What kind of cement would be the best?
3. What price per barrel, f. o. b. cars?
4. Will coarse sand with some gravel do to make a floor?
F. A.
Algoma, Ont.

Ans.—1. It depends upon the thickness necessary, i. e., upon the kind of stock for which the stable is floored. A barrel of good Portland cement will lay about 140 square feet of alleyway or pigpen floor three inches thick; or 80 square feet of horse or cow-stable floor four inches thick. Of rock cement, you would require at least one-third more.

2. All the cements advertised in the "Farmer's Advocate" are first-class, and will, we believe, give about equal satisfaction. We have used Portland and rock cement, and if building again, would be governed in our selection largely by local convenience.

3. Write our advertisers for catalogues and quotations.

4. Yes; use one part sand with five of gravel, with one part cement for the bottom three inches, and one part sand with two of gravel, or even half of each, for the finishing coat. For the finishing coat, use about one part rock cement to two of sharp gravel, or one of Portland cement to three of gravel. The finer the material, the greater the amount of cement necessary to encase the particles of stone, and make a perfect bind. On the other hand, there must be sufficient small stuff to fill in the interstices amongst the large gravel stones. A uniform size of gravel is, therefore, undesirable.

TRUMANS' CHAMPION STUD

READ OUR UNBEATEN RECORD AT ST. LOUIS WORLD'S FAIR:

Premier Championship.	Grand Championship.
Reserve Grand Championships.	Two Championships.
Three Reserve Championships.	Five Diplomas.
Six \$100 Shire Horse Ass'n Gold Medals.	Nine First Premiums.
Six Third Premiums.	Six Third Premiums.
Three Fourth Premiums.	Two Fifth Premiums.

Our fourth carload of Shire, Percheron and Hackney stallions just arrived at our London, Ont., stables, at the Reid Hotel, and with those already on hand make the best collection of stallions to pick from in Canada, many of them being World's Fair and International winners. A responsible guarantee given with every horse. We will sell a better stallion for the money than any other firm. **TWENTY-SEVEN YEARS IN THE IMPORTING BUSINESS.** Write for full particulars and new Catalogue Q.

Trumans' Pioneer Stud Farm
BUSHNELL, ILL., U.S.A.

Address	J. H. TRUMAN,
H. W. TRUMAN,	Whittlesea,
Manager, London, Ont., Branch.	England.

125 Percheron, Shire and Hackney
.. Stallions and Cares ..

At the World's Fair at St. Louis I won more Premier Championship awards than any other exhibitor of live stock; I won every Premier Championship offered on Hackneys, also every Gold Medal but one. At Chicago International, 1904, on 30 head I won 34 prizes.

I HAVE THE GOODS and will pay intending buyers' R. R. fare here from any part of Canada, sell you a good Stallion for \$700 to \$1,000, or choice of my barns for \$1,400, delivered in your town. I will guarantee stallions. I will sell against death for two years, and to get 60% mares in foal.

Time of payments made to suit the purchaser.

LEW W. COCHRAN, 607 West Main St., Crawfordsville, Ind.

\$7,000 in prizes. **ELEVENTH CANADIAN** \$7,000 in prizes.

HORSE SHOW

TORONTO ARMOURIES, WED., THURS., FRI. and SAT
APRIL 26, 27, 28 and 29.

Entries close April 12th. Address Henry Wade, Secretary, Parliament Buildings Toronto. Boxes sold by auction Wednesday, April 19th. Reserved seat sale begins April 21st. For information address the Manager, Stewart Houston, Massey Hall, Toronto.
REDUCED RATES ON ALL RAILWAYS. Return tickets at single fare, good going April 26; at fare and a third, good going April 27, 28 and 29. All tickets good to return all May 1st.

You Can Kill Mustard Absolutely Free

in a field of growing wheat without injuring the grain, through using the

Spramotor

The proof is positive and the results sure. The improvement in the crop will more than repay you for the trifling expense and the investment in the Spramotor. Write for full particulars; free Booklet D.

SPRAMOTOR CO., 68-70 King St., London, Ont.

Agents Wanted



McLachlan Gas and Gasoline Engines

Portable
Stationary
Traction
Marine
Engines



Complete
Gasoline
Threshing
Outfits a
Specialty.

10 to 40 h.-p. Threshing Engine.

Write for Catalogue and particulars to

THE McLACHLAN GASOLINE ENGINE CO., LIMITED,

TORONTO, ONT., or to

W. C. WILCOX & CO., Our Western Agents, Box 818, Winnipeg, Man.

ADVERTISE IN THE ADVOCATE

In answering any advertisement on this page, kindly mention the **FARMER'S ADVOCATE**.

SHEEP SCAB.

1. What are the symptoms of scab in sheep, and how may we know it?
2. How long after exposure will it manifest itself?
3. Does the parasite work on the outside of the skin, in the skin, or under the skin?
4. Will all sheep in flock become affected?
5. Will it cause death; if so, in what length of time?
6. Can a sheep be affected with scab and not show it?
7. Will a ram with apparently healthy skin in good show condition inoculate ewes that he served last November, he himself never having shown signs of disease, and is in apparent good health and condition to-day?
8. Does scab affect sheep in winter or summer; if both, which season is the worst?
9. Give information as to treatment?

Ans.—1. Itchiness and rubbing, skin becoming raw, reddish and scabby, and later wool falling off in patches.

2. That depends on the directness of contact and the virulence of the parasites.
3. It works on the surface of the skin inward.
4. They are liable to do so.
5. It may do so in course of time through emaciation.
6. They might not show it immediately after contact, but as the pest developed, they would soon show it by rubbing themselves, and otherwise as in answer 1.
7. It is not likely, though a ram may have been in contact and have had the disease some months and recovered through treatment.
8. This pest will work its ravages in any season.
9. Any of the sheep dips and insecticidal preparations recommended for the purpose and advertised in the "Farmer's Advocate" will be found effective, if used according to directions. The sheep should first be shorn. The official dip, authorized by the Dominion Chief Veterinary officer, and the use of which is obligatory to secure release in case of quarantine, consists of 24 lbs. flowers of sulphur, 10 lbs. unslacked lime, and 100 gallons water. First, boil the sulphur and lime in an iron pot for two hours in a portion of water; then, syphon off the liquid, and mix with the remainder of the water. When the mixture is still warm, immerse the sheep completely for two minutes, and repeat the operation in ten days.

HENS NOT LAYING—CANADIAN COW—IDENTITY OF AUTHORS.

1. I have been feeding my hens the past winter a mixture of barley, oats and some wheat, and a mash once a day of root and barley chop. They have free access to lime and old plaster and plenty of drink. They will each one lay three or four eggs, and then mope around nest as if they wanted to lay but couldn't. The few eggs I do get are very thin shelled. They are looking fine with red combs, but I only get one or two eggs a day from thirty-nine hens. Give cause and remedy.

2. Describe the Canadian cow spoken of in report of Central Experimental Farm.
3. Are Prof. Drummond, author of "Addresses by Drummond," etc., and Dr. Drummond, author of "The Habitant," two different persons?
G. T. H.

Ans.—1. Ration lacks green feed or vegetables, and probably grit, unless there is an unusual amount in the lime supplied. When the hens get out, they will probably find these essentials, and probably begin to lay.

2. The cow referred to, we understand, is a pure-bred French-Canadian, for which there is a breed association and herd-book, of which Dr. J. A. Couture, V. S., Quebec City, is Secretary, and for which he will probably furnish, on application, a scale of points, which is too lengthy for publication in the limited space at our disposal. The Canadian cow somewhat resembles a dark-colored Jersey, being about the same size. They are hardy, good feeders, and heavy milkers, 17 points out of 100 being credited to udder and teats.

3. Prof. Drummond and Dr. Drummond are two different persons. Prof. Drummond lived in Scotland; Dr. Drummond, author of "The Habitant," lives in Montreal.

QUESTIONS AND ANSWERS. Miscellaneous.

ARABIAN BOY.

1. Is Arabian Boy, owned and travelled in Essex Co., Ont., a pure-bred Arabian?
2. Are Godolphin, Victoria, Rob Roy, Lady Messenger, Arabian Dick, Queen Orland and Oakland known to be Arabians? If Arabian Boy is unknown to the editor, possibly some reader living in or near Wanstead, Lambton Co., Ont., may know something of his pedigree. Will the editor kindly publish whatever information he may obtain?
E. A. D.

We shall be pleased to hear from anyone who can furnish the information required.

RABBIT SNARE—CHRONIC COUGH.

1. How do you make a rabbit snare?
2. Five-year-old mare not doing well; hair rough, and has a cough, but does not run at the nose.
W. A. M.

Ans.—1. Will some of our sporting readers kindly favor us with a description of a rabbit snare.

2. One of those chronic coughs, difficult to treat, and liable to terminate in heaves. Give her, night and morning, 1½ drs. powdered opium, 1 dr. camphor, 30 grs. digitalis, and 1½ drs. solid extract of belladonna, moistened with a little treacle, and made into a ball. Continue for a week, then cease for a week, then repeat every second week as long as necessary. Give first-class food; give hay in small quantities, and moisten with lime water everything she eats. To the lime water add 2 ozs. raw linseed oil, night and morning.

PREPARATION FOR MANGELS.

1. Heavy clay land was manured and plowed for mangels last fall. What preparation should the land have this spring?
SUBSCRIBER.

2. What variety would likely do the best on clay soil?

Ans.—1. Thorough working. Harrow if possible as soon as the soil is dry enough to work without puddling; after that disk and Acme harrows and spring or rigid-tooth cultivators. Get the ground thoroughly pulverized, and keep it moist by repeated cultivation. When ready to sow (and this should be early in May), put up in low drills; or if you have a weeder, and know how to use it, the mangels may be drilled in on the flat with a grain drill, stopping part of the tubes, the soil being repeatedly stirred with the weeder. We would not like to advise this, however, on a very stiff clay.

2. Yellow Leviathan is the variety of mangels most highly recommended by Prof. Zavitz, of the O. A. C., it having been most popular in the co-operative experiments throughout Ontario in 1904.

WHEAT FERTILIZER—SMUT—RICH MILK.

Claremont inquirer asks: 1. Is there any danger in sowing wheat with a few kernels of smut, and how can I treat the seed?

2. What is the best kind of fertilizer for growing wheat? Kindly give the percentages of the potash and acids that are most needed in growing a good wheat crop on good green-sward plowed early last fall; also the number of hundredweights to the acre?

3. We have a cow that was fresh about six weeks ago. Having no tester, I weighed her milk; it weighed 13 lbs., and turned out 5 lbs. of thick cream. Is this a fair average?

Ans.—1. Yes; a few grains of smut contain spores enough to infect a large quantity of seed. You might sow and not suffer serious loss, but the only safe way is to treat the seed, as described in the "Farmer's Advocate" of issues March 9th and 16th.

2. We do not believe it profitable, under ordinary Ontario conditions, to depend upon commercial fertilizers in growing wheat, though in the case mentioned a small application might help to give the crop a start, and assist in getting a catch of seeds. We would suggest a complete fertilizer, about 200 lbs. per acre. Wheat especially requires nitrogen, and on most soils phosphoric acid is beneficial. The potash would be for the particular benefit of the clover seeding, and might help the wheat as well.

3. Assuming the cream tested 25% fat (which is ordinary churning cream), this would mean extraordinarily rich milk—9.61% fat. Try a change.

Impurities in the Blood

TELL OF TORPID, SLUGGISH LIVER ACTION AND INDICATE THE NEED OF

DR. CHASE'S KIDNEY-LIVER PILLS.

There is no getting round the fact that the liver is responsible for the impurity of the blood in the spring.

Awaken the liver to action by the use of Dr. Chase's Kidney-Liver Pills and you at once remove the cause of the ills and discomforts of this time of year.

Coated tongue.
Bitter taste in the mouth.
Shortness of breath.
Gas on the stomach.
Dull, sick headache.
Biliousness.
Irregularity of the bowels.
Weak, dizzy feelings.
Irritable temper, discouragement and despondency.

These are some of the most common indications that the liver is failing to filter the poison waste matter from the blood.

Dr. Chase's Kidney-Liver Pills cleanse the system thoroughly and well, by causing a free action of the bowels.

By their direct and certain action on the liver they purify the blood and bring about a good flow of bile into the intestines—the only means by which constipation can be actually cured.

Dr. Chase's Kidney-Liver Pills are an indispensable family medicine of proven worth. One pill a dose, 25c. a box, at all dealers, or Edmanson, Bates & Co., Toronto. The portrait and signature of Dr. A. W. Chase, the famous recipe-book author, are on every box.

At one of the Western army posts in the days of the Indian fights, there was a young lieutenant, who was careful to see that the regulations relating to saluting were faithfully observed. One day a soldier, who was leading an obstreperous mule to water and had both hands fully employed in the task, was met by the lieutenant. The soldier, who had an occupation which demanded his undivided attention, failed to salute the martinet, who immediately called him to account for his remissness.

"Why do you not salute an officer when you see him?" he demanded.

"You hold this mule and I will," calmly returned the man.

But the lieutenant did not insist, and the regulations were broken.

HAS BEEN ALL RIGHT EVER SINCE

T. H. Belyea, P. M., Proves That
Dodd's Kidney Pills Cure
Permanently.

Some Years Since He Used Them Now and He Has Had Good Health Ever Since—
Story of Well-known New Brunswick Man.

LOWER WINDSOR, Carleton Co., N. B., April 10.—(Special)—"Yes, I have good health ever since I used Dodd's Kidney Pills." The speaker was Mr. T. H. Belyea, postmaster here, and one of the most highly respected men in this part of the country. Asked to give his experience with the great Canadian Kidney Remedy, Mr. Belyea continued:

"I had been troubled with my kidneys for a number of years. I tried several kinds of plasters and other kinds of medicines, but did not seem to get any lasting benefit. Hearing Dodd's Kidney Pills so highly recommended, I decided to try them and they made a complete cure of me. That is two years ago now, and as I said before I have had good health ever since I used Dodd's Kidney Pills."

Dodd's Kidney Pills cure once and for all. There is no stage or form of Kidney Disease that they do not cure completely and permanently.

RURAL TELEPHONE COMPANY'S SUPPLIES— EAR LABELS FOR STOCK.

1. Would you give us, through your paper, the names of any companies who have a rural telephone system in good working order; also the names and addresses of Canadian manufacturers of telephones?

2. Are ear-labels for marking stock manufactured in Canada, and if so, where?
SUBSCRIBER.

Ans.—1. In the "Farmer's Advocate," of January 12th, 1905, was a very instructive letter by Thos. Begley, of Egerton, Ont., Secretary of the Egerton Telephone Co., giving an account of their experience in installing such a system. In Middlesex County is another such company, called the Harrietsville Telephone Association; President and Manager, Dr. W. Doan. For names of manufacturers of supplies, see answer to D. Barnhart, in this issue.

2. See advertisement of F. G. James, Bowmanville, Ont.

TREATMENT OF SOD FEEDING QUESTIONS.

1. I have just moved onto a high, rolling farm, all in sod. After plowing in the spring, would you advise rolling with a heavy land roller before starting to cultivate? If so, what is the advantage?

2. Please advise how to care for a piece for a garden? I have phosphate I could make use of.

3. What percentage of corn meal, bran and shorts would you feed milch cows, and how much at a feed? Is there anything else would be better for them and make them milk better? What do you think of sugar-beet pulp, and how much would you feed along with the other? About how much ought it cost here?

4. What do you think of the above-mentioned for feeding hogs, and how much of each would you feed to fatten for market?

5. Advise as to care of sod for sugar beets?

6. Would you sow wheat on the sod?
YOUNG FARMER.

Ans.—1. Yes, to compact the soil and establish capillary connection between the subsoil and the inverted layer; otherwise the top soil will dry out and not make a moist seed-bed, nor will the soil decompose readily. Roll each piece as soon as it is dry enough to work without packing together. Follow roller immediately, with harrow.

2. Too general a question to answer here. Better get a book on gardening. A neat handbook on the subject is "Vegetable Gardening," by Green, price \$1.00 through this office. It is rather late to prepare for a garden, as the land should have been fall-plowed.

3. It depends somewhat upon the roughage you are using. With clover hay, a fair average winter grain ration would be 2 lbs. corn meal, 3 lbs. bran, and 3 lbs. shorts, quantity to be varied according to individual requirements. If feeding corn silage, or timothy hay, substitute cotton-seed meal, 1½ lbs., or oil cake meal, 2 lbs., for the corn meal. The first ration would also be improved by the addition of 1 lb. of oil cake or cotton-seed meal. Every dairyman should raise roots enough to feed his cows from 2 to 3 pecks per day during the winter, even though he has silage. Without silage, ½ to 1 bushel should be provided. For information on best pulp, see articles in recent issues.

4. Corn meal 2 parts, and shorts 1 part, with a handful of oil meal added, would make a satisfactory hog-fattening meal ration, though it would be better to substitute barley and pea meal for 1 of the 2 parts of corn. Begin with a much lighter ration than the above, gradually increasing the proportion of the more concentrated meals. Never feed more than they will eat up clean. A few mangels might be fed profitably besides the meal.

5. We would not advise sowing sugar beets on spring-plowed sod. If you wish to do so, however, early plowing, and repeated working with roller, disk, Acme and smoothing harrows would be necessary. The crop will not likely do very well, and the roots will be fibrous.

6. We would not expect a very good yield, unless the land could be plowed quite early. Better take your neighbor's advice on this matter.

Fistula and Poll Evil

Do yourself what horse doctors charge big prices for trying to do. Cure Fistula or Poll Evil in 15 to 30 days.
Fleming's
Fistula and Poll Evil Cure
is a wonder—guaranteed to cure any case—money back if it fails. No cutting—no scar. Leaves the horse sound and smooth. Free Book tells all about it—a good book for any horse owner to have. Write for it.
FLEMING BROS., Chemists,
45 Front Street, West, Toronto, Can.

Dr. Page's English Spavin Cure

For the cure of Spavins, Ringbone, Curbs, Splints, Windfalls, Capped Hock, Strains or Bruises, Thick Neck from Disemper, Ringworm on Cattle, and to remove all unnatural enlargements.
This preparation (unlike others) acts by absorbing rather than blister. This is the only preparation in the world guaranteed to kill a Ringbone or any Spavin, or money refunded, and will not kill the hair. Manufactured by DR. FREDRICK A. PAGE & SON, 7 and 9 YONGE STREET, LONDON, E.C. Mailed to any address upon receipt of price, \$1.00. Canadian agents:

J. A. JOHNSTON & CO., DRUGGISTS,
171 King Street East, - Toronto, Ont.

PERCHERONS at BARGAIN PRICES

In order to make room for our new importation, for the next 60 days we will sell stallions at greatly reduced prices. Come and see us while this sale lasts.

We have some of our best ones yet. Among them is a black not three years old, weighing 1900 lbs., with the best of breeding. Located three miles out of town, or two miles from Ruthven, on the Pere Marquette. We pay lively if not on hand to meet you. Address: o

I. A. & E. J. WIGLE,
Essex County, Kingsville, Ontario.

IMPORTED Clydesdales

My lot of selected stallions and fillies just landed were got by such noted sires as Senator's Hair, Lord Lovat, Prince of Carrihan (3151), Moncreiff Marquis (9955) and others noted for their individual quality.

GEO. STEWART, Howick, P. Q.

IMPORTED CLYDESDALE STALLIONS AND FILLIES.

Also HACKNEY STALLIONS FOR SALE at reasonable prices. Come and see them, or write to

ADAM DAWSON, Cannington, Ont.

IMPORTED Clydesdale Stallions

For sale, reasonable. Come and see them or write to

Phillip Herold, V. S., Tavistock.

FOR SALE: The imported

Clydesdale Stallion

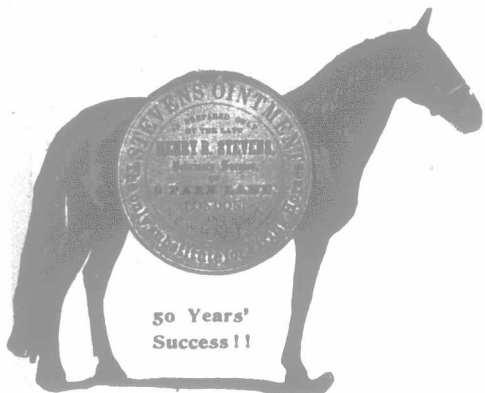
Uam Var [2129] (9457).
Apply to
DAVIS & GRAHAM,
Schomberg, Ont.

IMPORTED CLYDESDALES

5 young stallions, 4 two-year-olds and 1 four-year-old, sired by Mains of Airies, Prince Alexander, etc. Prices moderate.
ALEX. MCGREGOR, Uxbridge, Ont.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

WHAT A HORSE'S LEGS



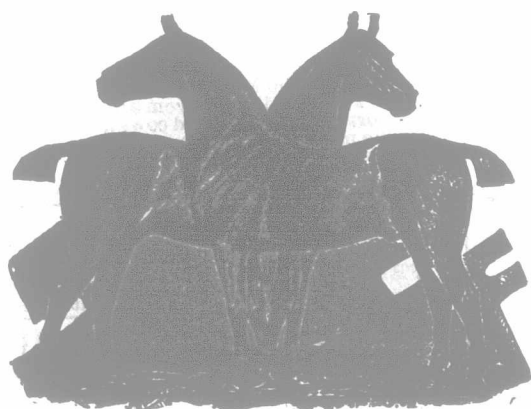
STEVENS' OINTMENT

are to a horse—so is
to a horse's legs. Get a box now! Then it will always be ready at a moment's notice. It keeps its strength for generations. Cures

Splint, Spavin, Curb, Ringbone,
and all enlargements in horses and cattle
75c. small, \$1.50 large box, at Chemists, or direct from
Eva's & Sons, Ltd., Montreal, Que.
Agents for Canada.

LAFAYETTE STOCK FARM

J. Crouch & Son, the Great Importers, of Lafayette, Indiana.



and the largest importers in the world of

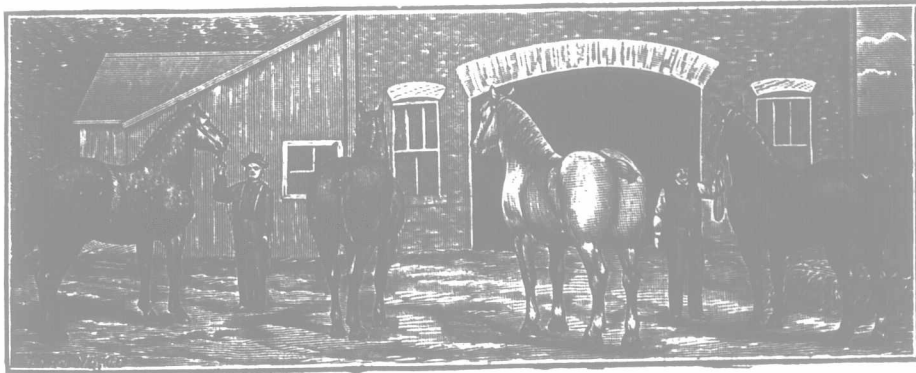
GERMAN COACH, PERCHERON and BELGIAN STALLIONS,

have just received at their new sale barns, Bernard House, London, another car of Percheron, Belgian and German Coach stallions. All are imported from France, Belgium and Germany, and are the largest prizewinners of 1904. We exhibited 100 head at the St. Louis World's Fair, and we have won more prizes in 1904 than all others combined. We guarantee every horse to be satisfactory, sure breeders, and back them up by a responsible guarantee. We sell nothing but good sound serviceable horses that will do our customers good.

MESSEURS. U. V. O'DANIEL and R. P. WATERS, managers and salesmen, London, Ont.

ADDRESS: **J. CROUCH & SON, LONDON, ONT.**

Have just received a new importation of 131 head of high-class Percheron, Belgian and German Coach Stallions.



20-PERCHERONS-20

Have just arrived with our new importation, Jan. 31st, 1905, direct from France, of 20 high-class Percherons and prizewinners in France, from the best breeders in France. They are descendants of such noted champions as Brilliant, Besique, Romulus. Have personally selected every horse ourselves, using extraordinary caution to select nothing but good, sound, serviceable horses that will do our customers and the country good. Colors, black and dark dapple grays. They are large and blocky fellows, 3 to 5 years old, and can go like trotters, weighing 1600 lbs. to 2000 lbs., with the right kind of feet and legs. We have a few choice German Coaches and Hackneys that are also for sale. We will sell you a better stallion for less money than any other importers in America, with a guarantee as good as gold. Intending purchasers should visit our stables before buying elsewhere. Inspect our stock and get our prices. Terms made to suit purchasers.

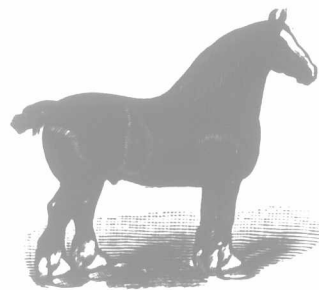
HAMILTON & HAWTHORNE, SIMCOE, ONTARIO.
82 miles south-west of Toronto, on G. T. R.



Clydesdale Stallions

Our third consignment since Toronto Fair has just arrived, per S. S. Athenia, from Glasgow, which includes several of the best colts ever landed in America. Prices right. See this lot, om

JAMES DALGETY, London, Ont.



SIMCOE LODGE STOCK FARM CLYDESDALES

Any persons wanting to purchase Clydesdale fillies and stallions for breeding should call on us before buying elsewhere, as we always have a number of prizewinners in our lot.

HODGKINSON & TISDALE BEAVERTON, ONT.

Long-distance Phone in connection with Farm
70 miles north of Toronto, on Midland Division of G. T. R.

QUESTIONS AND ANSWERS Veterinary.

SMALL HOOF.

Heavy three-year-old filly has small, brittle hoofs. How can I make them grow large and tough? D. A. G.

Ans.—Small, brittle hoofs are congenital in some cases, and in others they are due to too much standing on hard, dry floors. The growth and quality can be improved by blistering repeatedly around the coronet or by poulticing the feet, or standing for a few hours daily in a tub of water. Avoid, as far as possible, standing on dry floors, without moisture to the feet. V.

PREMATURE ACTIVITY OF MAMMÆ

About ten days ago, I noticed milk escaping from an aged mare, due to foal in June. The gland is quite full. A. R.

Ans.—Premature activity of the mamme occasionally occurs without appreciable cause. It is not infrequently seen when the foetus dies in the womb, and is occasionally seen where this accident does not occur. In cases where it continues for a long time, the foal is usually weak when born, and in other cases it is quite strong. As stated, we cannot, in all cases, account for the phenomena, and all that can be done is to feed on small quantities of dry food; give regular exercise, and give 1 dram iodide of potash, night and morning for a week in feed. V.

BOG SPAVIN AND THOROUGHPIN AND LAME MARE.

1. Ten-months-old colt has puffs on both sides and in front of hock. He is a little lame.
2. Seven-year-old mare goes lame on one fore foot on hard roads, or when she steps on something hard. J. N.

Ans.—1. This is bog spavin and thoroughpin. Get the following blister: 1 1/2 drams each biniodide of mercury and cantharides, mixed with two ozs. vaseline. Tie the colt so that he cannot bite the parts. Clip the hair off; rub the blister well in. In 24 hours rub well again with the blister, and in 24 hours longer wash off, and apply sweet oil. Let his head loose now, and oil every day, until the scale comes off. Repeat the blistering once every month for 4 or 5 times, even though the puffs disappear, as, unless this is done, they will probably reappear. Keep him in the stable for a week each time after blistering.

2. This may be due to ringbone, and if so, will need to be fired and blistered by a veterinarian. I think it probably due to navicular disease, and if so, a cure cannot be effected, but by blistering the coronet all around the hoof once monthly the same as No. 1, and giving her a long rest the symptoms will improve. If you cannot give rest, put on a bar shoe, and poultice the foot every night. V.

LYMPHANGITIS, ETC.

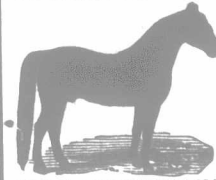
1. Mare had lymphangitis in January. How can I prevent a future attack?
2. Will grease heel turn to grease leg or lymphangitis?
3. Sow had a litter of pigs. We have bred her three times since, but she will not conceive. J. B. O.

Ans.—1. By giving her exercise every day, and feeding lightly on bran instead of oats when not doing much, she is not likely to suffer again, as the disease is usually preceded by a day or more rest and good food.

2. Grease heel is fortunately rarely seen. It is very hard to treat, and is liable to extend and involve the leg, but will not turn into lymphangitis. It is probable you mean cracked heels or scratches. If so, and it is of long standing, dress once daily for three applications with butter of antimony, applied with a feather; then poultice for two days and nights with a warm linseed meal poultice. Apply a fresh poultice every 5 or 6 hours. Then get the following lotion, and apply three times daily, viz., 1 oz. each sulphate of zinc and acetate of lead, 2 drams carbolic acid, and 1 pint water.

3. I cannot suggest anything, as the sow is too small to operate on. I would advise you to feed her for the butcher. She may breed after getting a run on grass. V.

HORSE OWNERS! USE GOMBAULT'S CAUSTIC BALSAM.



A safe, speedy and positive cure. The safest, Best BLISTER ever used. Removes all bunches from Horses. Impossible to produce scar or blennish. Send for descriptive circulars.

THE LAWRENCE-WILLIAMS CO., Toronto, Can.

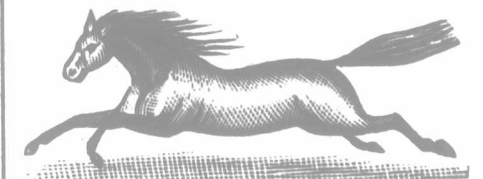
You Can't Cut Out A BOG SPAVIN or THOROUGHPIN, but ABSORBINE

will clean them off, and you work the horse same time. Does not blister or remove the hair. Will tell you more if you write, \$2.00 per bottle, delivered. Book 5-B free. ABSORBINE, T.B., for mankind, \$1.00 Bottle. Cures Varicose Veins, Varicocele, Hydrocele, Ruptured Muscles or Ligaments, Enlarged Glands, Allays Pain. Genuine mfd. only by

W. F. Young, P.D.F., 73 Monmouth St., Springfield, Mass.
Canadian Agents, Lyman, Sons & Co., Montreal.

"THE REPOSITORY"

Burns & Shoppard, Proprietors,



Cor. Simcoe and Nelson Sts., TORONTO.

Auction Sales of Horses, Carriages, Buggies, Harness, etc. every Tuesday and Friday at 11 o'clock.

Special Sales of Thoroughbred Stock consigned. Commissions solicited. Correspondence will receive prompt attention.

This is the best market in Canada for either buyer or seller. Nearly two hundred horses sold each week.

Clydes Hackneys

FOR SALE: Nine choice imported

Clydesdale Stallions
By such noted sires as Hiawatha, Prince of Kyle, Oranmont, Ascot and Sir Hugo. Also six choice imported HACKNEYS, by the English champion, Garton Duke of Connaught, and others. All are rare good individuals. Determined to reduce stock, will make prices and terms to suit customers. A rare chance—or a good stallion at a right price. Millbrook is on G. T. R., 18 miles north of Port Hope. Call or write.
T. H. HASSARD, MILLBROOK, ONT.

FONTHILL STOCK FARM

50 SHIRE HORSES AND MARES to choose from.
MORRIS & WELLINGTON,
FONTHILL, ONTARIO

Clydesdale Stallions and Fillies.

Imported and Canadian-bred. For sale: Two Canadian-bred stallions, rising 3 years, from imp. sire and dams, also SCOTTHORN Cows and Helfers for sale. Reasonable prices. For particulars write to

JAS. W. INNES,
Cityview Farm, Woodstock, Ont.

CLAYFIELD STOCK FARM

Clydesdales, Shorthorns and Cotswolds.

41 prizes won at World's Fair at St. Louis, 11 firsts, 5 champions. Will now offer my entire flock of rams and ewes at prices according to quality.

J. C. ROSS, Jarvis, Ont.

Canadian Clydesdales for sale. One stallion rising 3 years, one stallion rising 2 years. For further particulars, apply to
GEO. BOTHAM, Bradford, Ont.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

QUESTIONS AND ANSWERS.
Miscellaneous.

POLAND WHITE SEED OATS WANTED—
SORENESS FROM FOUNDER.

1. Where could I get the Poland White oat fit for seed?
2. What should I do to relieve soreness in mare's feet, from founder?

SUBSCRIBER.

Ans.—1. Try our advertisers. Those having this variety for sale should write us for advertising rates.

2. In treating a case of founder, after the acute inflammation has ceased, apply cold to the feet, or stand in cold water. After a few days he should be shod with bar shoes, and given gentle exercise. If tenderness threatens to remain, blister gently around the coronet. After the blistering a run in a moist pasture is beneficial. Keep him as much as possible off hard roads or floors.

SOWING RAPE IN GRAIN.

Is it a good idea to sow rape with grain? How many pounds per acre? Should it be sowed same time as the grain, or later? If sown with the grain, would its rapid growth choke the grain?

H. F.

Ans.—Some farmers who have practiced sowing rape with grain report favorably. It is usually sown broadcast, at the rate of about 5 lbs. to the acre, two or three weeks after the grain is sown, and without covering, though some use a weeder and some a roller to cover it. There is danger in a wet season, when sown with the grain, that it may grow so large as to hinder the drying of the sheaves at harvest. Even if quite small at harvest time the rape will grow fast after the crop is removed, especially if the weather is showery, and will produce a lot of good pasture, and if cut off by the harvester it will spring up again.

RULES FOR SYNDICATING STALLIONS.

1. What steps have to be taken when a syndicate or an association is formed for the purpose of buying a stallion?
2. Would such an association have to be registered or incorporated?
3. Where can I get a copy of rules and regulations of a good stallion syndicate?

J. T.

Ans.—1. A company is formed, consisting of any desired number of stockholders, generally 10 or 12. Officers are elected, viz., a president, secretary-treasurer, and manager, and a board of three or five trustees or directors. The manager is to handle, care for and have charge of the horse, under the direction of the board of directors or trustees, who shall have general charge of the horse, with full power to direct as to his management. The net earnings of the horse are divided pro rata among the stockholders, at the regular annual meeting of the company.

2. No.
3. Possibly from one of the importing companies advertising.

SOILING CROPS.

1. What, in order of utility, are the three best crops to sow for cutting and throwing out to cows to supplement permanent pasture, beginning at the middle of July?
2. What is the best mixture of grass and clover seed to sow on wet, sour land for permanent pasture? The land would not pay for draining, but I would like to get what benefit I can from it.

R. S. S.

Ans.—1. Lucerne is unquestionably the best. Of annuals, we would suggest a mixture of oats, 1 bushel; spring wheat, ½ bushel; peas, 1 bushel, and tares, 1 bushel. By sowing at intervals of a week or so, this should run the cows till well on in August. For the latter sowings spring wheat might be substituted, by increasing the peas and oats ½ bushel each. By the time this mixture was too ripe, late sown Hungarian millet should carry the cows till corn is ready.

2. Try red top, 10 lbs.; Kentucky blue grass, 10 lbs.; timothy, 6 lbs.; alsike, 2 lbs.; white or Dutch clover, 2 lbs.; red clover, 2 lbs. Another grass recommended by seedmen for this purpose is water meadow grass (*Poa aquatica*), a few pounds of which might be included.

Gapey Chicks



This is the most notorious, widespread and destructive parasitic disease of poultry. Feed Dr. Hess Poultry Pan-a-ge-a regularly as directed, beginning when the chicks are a week old and continue until they are well feathered, and if you have loss from Gapes, Indigestion, Leg Weakness and the like, the written guarantee says you get your money back.

DR. HESS
POULTRY
PAN-A-GE-A

Is the scientific poultry tonic and reconstructive, formulated by Dr. Hess (M.D., D.V.S.). It not only prevents and cures diseases, but makes the young grow fast, healthy and strong. Costs but a penny a day for 30 to 60 fowls.

11-2 lb. package 35c; 5 lbs. 85c; 12 lbs. \$1.75; 25-lb. pall \$3.50. Sold on a written guarantee.

Send 2 cents for Dr. Hess 48 page Poultry Book, free.

DR. HESS & CLARK
Ashland, Ohio, U. S. A.
Keep your poultry free from lice with Instant Louse Killer.

ABERDEEN-ANGUS



Present offerings: Choice young bulls, ready for service; also heifers, all ages. For particulars, write to GEO. DAVIS, Alton P. O., Erin Stn., C. P. R.

Aberdeen-Angus for Sale—Our stock bull (1st at Toronto) and 4 of his sons, 11 to 16 months. JAMES SHARP, Rockside, Ont., Cheltenham Stn., C. P. R. and G. T. R.

If you want Aberdeen-Angus Bull or Cow, a good one, write. We have six young bulls sired by Imp. "Prince of Benton," champion Angus bull of Canada in 1903 and 1904. JAMES BOWMAN, Elm Park, Guelph, Ont.

BARGAINS for 30 days. Durham cow, 7 years, and bull calf, by a Watt bull, \$100; two dark red bulls, 9 months, \$50 each; Yorkshire boars and sows, 30 to 40 lbs., at \$6 each; our yearling stock boar, quiet and a good getter, \$15. W. R. BOWMAN, Mount Forest, Ont.

HURON CENTRAL STOCK FARM OF ABERDEEN-ANGUS

Our present offering is seven young bulls, 8 to 18 months old. All sired by the champion bull "Goderich Chief 3743". All stock registered in the American Herdbook. Also offering the young coach stallion Godolier, winner of 1st at London this year.

E. BUTT & SONS, Clinton, Ont.

FOREST VIEW FARM HEREFORDS, 4 bulls from 8 to 12 months old; prizewinners and from prizewinning stock. Several heifers bred on the same lines; choice individuals, for sale. JOHN A. GOVENLOCK, Forest Sta. and P. O.

THE SUNNYSIDE HEREFORDS

Imp. Onward in service. Eight choice bulls of serviceable age; this includes two year-olds, all of the blocky, heavy type, at prices that will move them. We can yet spare some cows and heifers.

O'NEIL BROS., Southgate, Ont. Ilderton Sta., L. H. & B.; Lucan Sta., G. T. R.



PAMPHLET FREE MOORE BROS., V.S., ALBANY, N.Y.

Miscellaneous.

THREE-HORSE REINS WANTED.

Would you be kind enough to give a cut of three-horse reins for young ambitious horses? F. S. W. Compton Co., Que.

Ans.—Ideas of readers are invited on the best method of handling three horses abreast.

WHERE TO SELL PRODUCE.

Please let us know the name of some reliable firm in Toronto or London to whom we could sell farm produce, such as butter, eggs, poultry, etc., for cash. Grey Co., Ont. H. F.

Ans.—Reliable houses doing produce business would do well to advertise in the "Farmer's Advocate."

BARN PAINTING.

What is the cheapest and best kind of paint a farmer can use on a barn? R. L. H.

Ans.—For dressed lumber, oil and lead paint is recommended; but would be expensive on rough lumber. Write the Canada Paint Co., Montreal, or the Spramotor Co., London, Ont., mentioning the "Farmer's Advocate."

TRADE TOPICS.

ENGLISH COOPER DIP.—In choosing a dip certain points should be borne in mind. Hundreds of decoctions may be termed insecticides, but few only effect the destruction of insect pests without discoloring the wool or setting the animal back in general condition. The enormous sale and long reputation of the well-known English Cooper Dip it is claimed has been won on its freedom from all harmful effects while being thoroughly efficient in the destruction and prevention of disease and insects.

ZENOLEUM.—D. C. Platt & Son, Millgrove, Ontario, write: "We were exhibitors of the Large Yorkshire swine at the recent International Live-stock Exposition, and wish to congratulate you upon the excellent manner in which you kept the Swine Department disinfected with Zenoleum. We firmly believe that Zenoleum will prevent hog cholera from spreading, and it is an excellent remedy for lice on hogs."

GOSSIE.

Messrs. C. J. Gilroy & Son, Glen Buell, Ont., write: "Our sales of Holsteins from the Maple Glen herd are quite satisfactory so far this season. We recently shipped to Kingston Stations to W. H. Horning, of Keplar, a fine young bull, a grandson of Carmen Sylvia. The sire of the dam of this bull was sold at public auction when six years old for \$900 in Wisconsin. Mr. Horning also secured the grand young heifer, Lady Sherwood Abbe-kirk. In the same car went her half-sister, Pearl of Delta, to R. H. Curran, of Latimer, who purchased a superior bull of us last year. In writing of the arrival of the two females and the bull, Mr. Curran says: 'I am well satisfied with the appearance of the animals, as they are fully up to, and even better than, you described them.' Mr. Wm. Irwin, of Dalkeith, secured a fine son of Pearl of Delta. She was sired by Oxford's Netherland King, our sweepstakes show bull of 1903. Mr. Wm. C. Stevens, of Delta, who purchased a fine pair of heifer calves from us at Ottawa Fair, recently selected the grandly-bred cow, Tilly. Her sire and Inka Sylvia's sire were brothers, so that Tilly is richly bred. Mr. Stevens knows her well, as she was previously owned near him, and he has been trying to get her and her daughter back. We also had a pleasant call from Mr. Wright Sickler, of Westport, a few days ago. He secured a grandson of Carmen Sylvia, the second-prize calf at Ottawa last fall under six months old; he also took the young cow, Iona J. Jewel and her heifer calf. Iona J. Jewel has for dam Iona J. 2nd, a first prize cow at Toronto, and one in the Ad. Registry. One of our nearest neighbors who has known our herd ever since we started, came over and secured a grandson of the great Iona Sylvia, and we feel sure that Mr. John Sturgeon, the purchaser, will be well pleased with the offspring of so richly bred a youngster."

Bog Spavin

Lameness resembles bone spavin, but the bunch is in front of the true hock joint, a little to the inner side, and is soft and yielding, hardening sometimes as the case grows old.

Fleming's Spavin Cure (Liquid)

is a special remedy for the soft and semi-solid bunches that make horses lame—Bog Spavin, Thoroughpin, Splint, Curb, Capped Hock, etc. It isn't a liniment to bathe the part; nor is it a simple blister. It is a remedy unlike any other—doesn't irritate and can't be limited. Easy to use, only a little required, cures the lameness, takes the bunch, leaves no scar. Money back if it ever fails. Write for Free Horse Book before ordering. It tells all about this remedy, and tells what to do for blemishes of the hard and bony kind.

FLEMING BROS., Chemists, 25 Front Street, West, Toronto, Can.

SPECIAL OFFERING OF SHORTHORNS and SHROPSHIRE

(Imp.) Scotland's Pride = 36098 =, 5 years old, a Cruickshank Clipper, by the great sire, Star of Morning.
(Imp.) Scottish Pride = 36106 =, 4 years old, a grand sire, of the Marr Roan Lady family, 2 bulls, 2 years old, and 7 from 9 to 15 months.
20 imported and home-bred cows and heifers. All of the most approved Scotch breeding.
30 Shropshire ewes, one and two years old.
25 ram lambs.
No reasonable offer refused. For catalogue or further particulars write

W. G. PETTIT & SONS, FREEMAN, ONT. Burlington Jct. Station, Telegraph, Telephone.

SCOTCH SHORTHORNS

85 head in our herd. The choice breeding bull, Imp. Green-gill Victor, a Princess Royal, bred by W. S. Marr, heads herd. We have for sale a dozen young bulls of the strong-back, deep-body and short-leg kind; some from our best Imp. cows. Also 20 imp. females and 20 home-bred females, all of well-known Scotch families, either in calf or with calf at foot.

R. MITCHELL & SONS, Nelson P. O., Ont.; Burlington Junction Sta.

THREE IMPORTED Shorthorn Bulls

Four imported cows in calf, home-bred cows, heifers and young bulls, all of straight Scotch families. Four imported Shropshire rams, eight imported ewes and any number of Shropshire and Cotswold ram and ewe lambs of the highest class, is what I can show you now, and all will be priced at moderate rates.

Robert Miller, Stouffville, Ont. Representative in America of Alfred Mansell & Co., Shrewsbury, England.

Three Scotch-topped Shorthorn Bulls

FOR SALE. 2 by Prince Gloster = 40998 =, one by Collynie Archer (imp.). The names of such bulls as Royal Barmpton (imp.), Stanley (imp.), Prince of the Realm (imp.), Earl of March and Revenue = 21053 = appear in the pedigrees. Good individuals; must be sold. Inspection solicited. Visitors welcome.

Stations: Myrtle, C. P. R.; Brooklin, G. T. R. W. M. D. DYER, Columbus, Ont.

Wm. Grainger & Son

Hawthorne Herd of Deep-milking Shorthorns.

Aberdeen Hero (imp.) at head of herd. Present offerings 6 good young bulls by Scotch sires. Come and see what we have. Londonboro Sta. & P. O.

HIGH-CLASS Shorthorn Cattle and OXFORD DOWN SHEEP

Present offerings: Young stock, either sex. For prices and particulars write to JAS. TOLTON & SON, Walkerton, Ont.

WILLOW BANK STOCK FARM

Established 1855. Large and old-established herd of SHORTHORNS. Good milking qualities. Splendid offering of either sex. Scotch and Scotch-topped. JAMES DOUGLAS Caledonia, Ont.

WILMEDGE SCOTCH SHORTHORNS

Ramford, Minas, Nonpareils, Crimson Flowers, Marr Floras and Lavinias. Our herd will stand comparison with any. We reserve nothing; 45 head of both sexes, all ages, for sale. James Bowes, Strathalbyn P. O., Neaford Sta.

Scotch Shorthorns

Three young bulls. One dam Lady Ythan 5th, imp.; 2 others by invincible, second prize, Toronto, 1904; also heifers of like breeding and quality. G. H. OKE, Alvinston, Ont.

SHORTHORNS

For Sale—Still have some young cows with calves at foot for sale. Good animals and well bred. Hugh Thomson, Box 556, St. Mary's, Ont.

Shorthorns and Cotswolds

Six bulls ready for service, sired by Merry Pampton, in p., 36068, 156715, and from thick-fleshed, heavy-milking dams; also heifers by same sire. Prices reasonable for early delivery. For particulars, write to JOHN SOCKI T. T. Rockwood Stn & P. O.

Forest Hill Stock Farm Shorthorns—3 choice serviceable age, and a few good heifer calves. For particulars apply G. W. KEAYS, Hyde Park P. O., Ont.

In answering any advertisement on this page kindly mention the FARMER'S ADVOCATE.

QUESTIONS AND ANSWERS. Miscellaneous.

TAR ROOFING FOR BARN.

Would tar roofing do for a barn roof, or would dirt stick to it?

INQUIRER.

Ans.—We do not think this would be suitable for any pitch roof, as the heat of the sun would melt the tar, which would run more or less, besides wearing by washing of rain.

CONDITION POWDERS FOR IN-FOAL MARES

Is the prescription for fitting up a horse, given on page 294 of the "Farmer's Advocate," March 2nd, injurious to a mare in foal?

J. S.

Oxford Co., Ont.

Ans.—No.

LOOKING FOR RHODE ISLAND REDS.

Please let me know through the columns of your paper where I could get Rhode Island Red poultry eggs for hatching, and what they would cost per setting.

W. N.

Ans.—Poultrymen who have the above and other breeds of pure-bred hens are standing in their own light by not advertising them in the "Farmer's Advocate."

TREATMENT FOR THRUSH.

Please give information for best treatment for thrush.

WEST SIMCOE SUBSCRIBER.

Ans.—Cleanse the foot thoroughly, and pare away ragged or detached tissue; wash with warm soft water and castile soap, and keep in a clean stall; dry well, and apply a lotion, consisting of zinc, six drams, in a pint of water; or apply dry calomel pressed in on a fledge of tow.

HOW TO USE ASHES.

Would you advise spreading ashes on fall wheat? If so, before or after the snow goes off; or would you advise spreading them on root ground?

L. S.

Ans.—Ashes give best results on legumes. Put them on the land where you are seeding to clover or alfalfa. Applied on the snow, some leaching might occur. Better apply after snow is off, in time to be washed into the soil by late April rains. Twenty-five or thirty bushels per acre.

LUCERNE FOR ORCHARD—BLUE ANDALUSIANS NEST BOX WANTED.

1. Would you advise sowing lucerne in an old orchard for hog pasture, or would the shade destroy it?

2. Are the Blue Andalusians considered as good layers as the White Leghorns?

3. Could you give me a description or plan of a nest box that will prevent hens from eating their eggs?

E. D.

Ans.—1. No; the lucerne would do all right, but would be liable to get the best of the trees. Some of them would very likely be killed in time. 2. Andalusians are counted good layers of large white eggs, but the Leghorns are hard to beat at this business. 3. Description of such a nest appeared in the "Farmer's Advocate" of March 10th, 1904. Any reader having a good device of this kind is invited to send us a description and drawing.

STONE WALL—VENTILATION—YOUNG CATTLE.

1. Which is best to put a stone wall on a trench of 8 inches or 10 inches of loose stone, or to start the wall on the hard clay?

2. As some of the farmers around here are complaining of the water dropping off the ventilator-house onto the barn roof, causing the shingles to rot, would it be any better to have the pipe to come out of the gable end at the peak, or would you prefer any other method?

3. Do young cattle (one, two and three years old) do better running loose, or tied up, in a good comfortable stable?

C. A. H.

Ans.—1. Dig down deep enough to start the wall below the frost line. If the bottom is hard clay, the wall might be commenced on it, but we would advise eight or ten inches of small stone to be connected with a tile-drain outlet. Mix some mortar with the stone to bind them together and make a firm foundation. 2. We do not see how it would help matters to have the pipe to come out at the gable end. 3. In an equally comfortable place, they do better if dehorned and run loose, and will improve faster when turned out to pasture.

Forty Agricultural Colleges Use And Endorse Zenoleum.

There is not a manufacturer in any line in this country today who would not give almost anything within reason for such an endorsement. It isn't easy to get; that is why everybody wants it. When we began to manufacture ZENOLEUM we told the Experiment Station Directors that we would make a live-stock dip, germicide, insecticide and general disinfectant that would be so genuinely good and reliable they would willingly use and endorse it. They were anxious to secure something of this nature which was uniform, dependable, efficient and economical. We proved our good faith by making ZENOLEUM and the college authorities have proven our claims and shown their confidence by constantly using and recommending ZENOLEUM. In Zenoleum Bulletin 108 we give a list of these Agricultural College Experiment Stations and the endorsements of their Presidents, Directors, Professors of Animal Husbandry, Farm and Live Stock Superintendents, etc. Send for a copy of this Bulletin so you may read what they say and write to them yourself, if you so desire. As one who owns and breeds live stock, this is a matter of vital importance to you.

Wonderful Zenoleum. "Coal Tar Disinfectant and Dip." The Great Promoter of Animal Health.

One gallon of ZENOLEUM will be sent you, express prepaid for \$1.50 and it will make 100 gallons of reliable disinfectant solution. Try it for the animal troubles and ailments that are worrying your stock; use it as a disinfectant, germicide and insecticide; for mange, scurvy, ringworm, canker, scab; for removal of stomach and intestinal worms; to cure calf cholera, abortion of cattle, chicken cholera, scab in sheep, cattle mange or itch, etc. We are satisfied that if we can induce you to make the trial you will become more than enthusiastic about Zenoleum. In addition to every representation made above, Zenoleum is guaranteed to be non-poisonous—absolutely harmless for internal or external use. Neither injures skin, discolors wool or roughens the hair.

We ask you to take no chances. Read the Zenoleum guarantee. If Zenoleum is not all we say it is—or even what you think it ought to be—you get your money back. No argument. Just Money.

Most all druggists handle Zenoleum—if yours won't supply you, we will. The prices of Zenoleum are: One gallon, \$1.50, express paid; two gallons, \$3.00, express paid; three gallons, \$4.50, express paid; and five gallons, \$6.25, freight paid. Send us for booklets, "Veterinary Adviser," "Chicken Chat" and "Piggies' Troubles." Free. ZENNER DISINFECTANT CO., Brampton, Ontario, 113 BATES STREET, DETROIT, MICHIGAN.

SHORTHORNS FOR SALE

Four young bulls, including 22-months son of Mayflower 3rd, champion female at Winnipeg and Toronto, 1904; also a few good heifers of same family. Primrose Day (imp.) at head of herd.

WM. McDERMOTT, Living Springs, Ont., Fergus Station.

12 SHORTHORN BULLS

20 Cows and Heifers

Good ones, Scotch-bred, at moderate prices. Catalogues on application. H. SMITH, Exeter, Huron Co., Ont. Station adjoins farm. Long-distance telephone in residence.

Shorthorns—We have for sale several young bulls ready for service, sired by Royal Duke, he by Royal Sailor (imp.). Also a few heifers and cows, bred to Wandering Count, by Wanderer's Last (imp.). J. R. McCALLUM & SONS, Fona Str., Ont.

MOUNTAIN VIEW SHORTHORNS

Imported and home-bred, male and female, prize and sweepstakes winners, various ages. Anything for sale.

S. J. McKNIGHT, Epping P. O., Thornbury Station.

Auction Sale of Green Grove Shorthorns

I will sell on my farm, February 14th, a choice selection of 25 bulls and heifers. Catalogues will be ready by Jan. 25th. W. G. Milson, Goring P. O., Markdale Sta.

J. WATT & SON—1 imp. BULL; also a number of imported and home-bred cows and heifers, in calf or with calves at foot from (imp.) Royal Archer and Royal Star.

Salem P. O., Elora station, G.T.R. & C.P.R. O.

SHORTHORNS & CLYDESDALES

Present offerings, a few young bulls, sired by Prince of Banff (imp.), also one registered Clydesdale stallion, rising 2 years. Prices low, considering quality. DAVID HILL, Staffs, Ont.

SHORTHORNS and DORSETS

Write for what you want. Also a number of young Yorkshire sows for sale.

D. Bartlett & Sons, Smithville, Ont.

MAPLE LEAF STOCK FARM

4 Choice Young Bulls For Sale. Also some cows and heifer and prizewinning Berkshire pigs. Terms reasonable. ISRAEL GHOFF, Alma P. O. & Sta., G.T.R.

SCOTCH SHORTHORNS FOR SALE

Two young bulls, 12 and 16 months old, both royally bred; also fifteen heifers and cows, most of them in calf to a son of Lord Gloucester, No. 26935 DR. T. S. SPROULE, Cedarvale Farm, Markdale P. O. and Station.

THOS. MERCER, Box Markdale, Ont.

Breeder and importer of CLYDESDALE HORSES, SHORTHORN CATTLE and YORKSHIRE PIGS. Car lots a specialty.

SCOTCH-TOPPED SHORTHORNS

Nine young bulls ready for service; also several heifers by Scottish Baron 4021 (imp.), first sale reasonable. Come soon and get first choice. H. GOLDING & SONS, Thamesford P. O. Stations, Thamesford, C.P.R.; Ingersoll, G.T.R.

SIR WM. DAWSON'S BOOKS.

What is the price, and where can I get the books, "Story of Earth and Man," and "The Historical Deluge," mentioned in the "Farmer's Advocate"?

H. W.

Ans.—Try your nearest bookseller, or write Wm. Briggs, the Book-Room, Toronto, Ont.

RURAL TELEPHONE SUPPLIES.

Please state where we can get a telephone and supplies for rural telephone lines.

D. B.

Ans.—Sayer Electric Co., Beaver Hall Hill, Montreal, P. Q., and the Strombery-Carlson Telephone Manufacturing Co., Rochester, N. Y., both of whom have been advertising in the "Farmer's Advocate."

CEMENT, SAND AND GRAVEL PROPORTIONS.

What is the general rule, as to right proportions of gravel, sand and cement, to use to ensure a good wall?

J. M. T.

Ans.—It depends on the character of the sand and gravel used. If fine sand alone is used, it will require very much more to unite all particles in a solid mass, than in case of good, coarse, sharp gravel or where broken stones are bedded in. With a good rock cement, like Queenston or Battle, about one part to six of good gravel is sufficient; or one part of good Portland cement to ten parts gravel.

TWENTY-FOUR-SHARE BEEF RING.

Would you please send me information as to starting a beef-ring with twenty-four members, as we found that twenty members are not enough, as we think the animal is too light to give the best results?

R. C. M.

Ans.—We believe a twenty-share ring has usually been found quite large enough. Some prefer only sixteen. Anyone who has had experience with a twenty-four share-ring would oblige us by sending description and chart.

SCALY LEGS.

We have a small flock of Barred and Buff Rocks which have been laying well this winter, but some of them have a disease in their feet and legs, which, we think must be the "scaly leg." They seem to be quite painful. In the morning, sometimes they can hardly walk around for awhile. We have been feeding them mostly buckwheat, a little oats and some vegetables and meat.

1. What is the cause of this disease?

2. Is it contagious?

3. What can be done for the diseased hens?

J. A. S.

Ans.—1. Scaly leg is caused by a mite, which burrows under the scales of the feet and shanks.

2. Scaly leg is contagious.

3. The crusts may be loosened by soaking in warm soapy water, or by vigorous brushing with an old tooth or nail brush. When they have been removed, apply sulphur ointment, or a mixture of lard and kerosene.

A. EDWARD MEYER

Box 378, Guelph, Ont.

Breeder of Scotch Shorthorns

High-class Princess Royals, Brawith Buds, Villages, Nonpareils, Minas, Bessies, Claretts, Urys and others. Herd bulls, imp. Chief of Stars (75215), 145417, -53076, Lovely Prince -50757-. Some choice yearling heifers for sale. Correspondence solicited. Visitors welcome. Telephone in house.

SHORTHORNS FOR SALE

Six young bulls, 20 cows and heifers, by that grand bull, sire of unbeaten Fair Queen and sister Queen Ideal, first-prize senior heifer calf at the International, 1904.

H. K. FAIRBAIRN, Thedford, Ont.

1864 - HILLHURST FARM - 1905

Scotch and Scotch-topped SHORTHORNS

Broad Scotch -46315- (Sixtyton Buttery) at head of herd. FOR SALE: Young bulls by Lord Mountsphen, Joy of Morning and Scottish Beau, 12 to 18 months old. Prices moderate.

JAS. A. COCHRANE, Hillhurst Station, Compton Co., P. Q.

BELMAR PARO SHORTHORNS

We offer six splendid young Scotch bulls and a really choice lot of females at prices that will pay you. Address: PETER WHITE, JR., PEMBROKE, ONT.

RIDGEWOOD PARK STOCK FARM

SCOTCH SHORTHORNS

Special offering on account of shortage of feed: Imp. and Canadian-bred cows and heifers, some first-class show stuff of leading families, including Missies, Mayflowers and Village Girls, and by such imp. sires as Imp. Favorite (83469), Nonpareil Archer and Marquis of Zenda. No fancy prices. Satisfaction guaranteed. Visitors met by appointment and always welcome. E. C. & H. C. ATTRILL, Goderich, Ont.

SHORTHORNS

Two extra choice young bulls of serviceable age, from imported sires; also heifers. LEICESTERS

Choice yearling ewes, now bred to our stock ram; also a few good ram lambs to offer.

W. A. DOUGLAS, Caledonia Station, Tuscarora P. O.

R. A. & J. A. WATT

Salem P. O., Elora Station, C.P.R. and G.T.R. Telephone in house.

Our herd of seventy-five head of Scotch-bred

SHORTHORNS

compares favorably with the best. Inspection and correspondence invited.

8 First-Class Young Bulls

And an excellent lot of cows and heifers. Scotch cattle, imp. and home-bred. Rich man's cattle at poor man's prices. Also high-class Yorkshire and Berkshire swine.

DAVID MILNE, Ethel, Ont., Huron Co.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.



LASTS A LIFE TIME

Applicable to Dwelling Houses, Stores, Factories, Warehouses—in fact, every kind of building. There is no limit to its use as an outside covering. It very materially enhances the appearance of any structure at the minimum of cost.

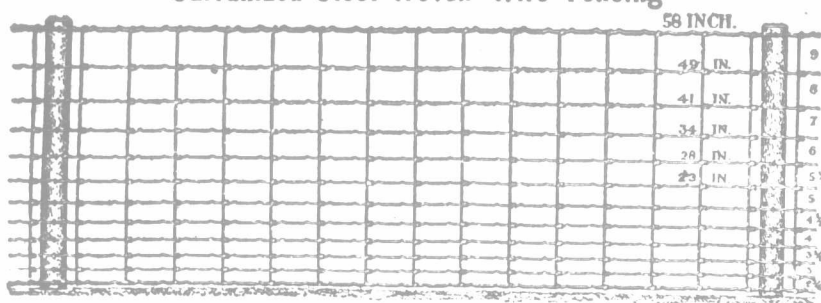
Greater protection is afforded against the ravages of fire, hence less money need be squandered in fire risk premiums.

The Classic Kids will gladly furnish details.

GALT ART METAL CO., Limited, GALT, ONT.

WE LEAD THEM ALL IN QUALITY, IN CHEAPNESS, AND IN QUANTITY SOLD

Galvanized Steel Woven Wire Fencing



American Field and Hog Fence.



Hinge Joints and Tension Curves.

We call your special attention to our extra Heavy Fence, all Horizontal Wires No. 9 gauge.

If your dealer does not handle our Fences, write to us.

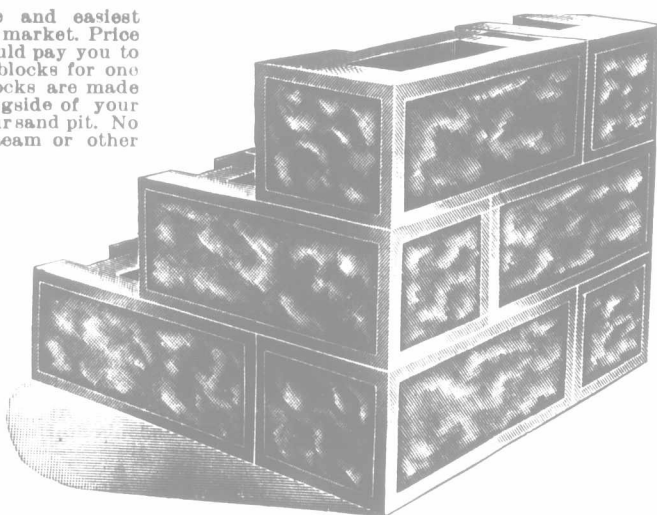
Made by **The Canadian Steel and Wire Co., Limited,** WINNIPEG, MAN. HAMILTON, ONT.

Dunn's Hollow Concrete Block Machine

Most compact, portable and easiest operated machine in the market. Price so reasonable that it would pay you to buy one if only to make blocks for one fair sized building. Blocks are made out in the open air, alongside of your building, or down by your sand pit. No firing or baking; no steam or other power required. Skilled labor not necessary. Full directions furnished with machine.

MAKES BLOCKS for houses, bank barns and buildings of every description. Cheaper than brick or stone and much handsomer. Warmer in winter; cooler in summer; and indestructible.

Write for particulars to Dept. O. om



The **JAS. STEWART MFG. CO., Ltd.,** Woodstock, Ont.

I CURED MY RUPTURE

I will show you FREE how to cure yours



"I was helpless and bedridden for years from a bad rupture. No truss could hold. Doctors said I would die if not operated upon. I fooled them all and cured myself by the Rice Method. I advise all ruptured persons to use this method," writes Mr. Robt. Howard, Muskoka Co., Ont. A Free Trial of this marvellous Method sent Free to all who write at once, giving description of their case. Thousands have been cured and **IT WILL CURE YOU.** Write to-day.

Dr. W. S. Rice, 2 1/2 East Queen St. Toronto, Ont. Block (276)

In answering any advertisement on this page, kindly mention the **FARMER'S ADVOCATE.**

QUESTIONS AND ANSWERS
veterinary.

LUMP JAW.

Give cure for lump jaw on cow, lump about the size of a hen's egg. C. H.

Ans.—Give internally one and a quarter drams iodide of potassium dissolved in a pint of water. Give once a day for eight days. If a soft spot is formed in the center, make an incision over it with a sharp knife deep enough to allow any matter it may contain to escape. Syringe out the opening thus made with solution of carbolic acid, about 1 to 40, and plug opening with a piece of absorbent cotton, saturated in tincture of iodine. Repeat once-a day until healed.

FEEDING LINSEED MEAL

1. How much linseed meal should a horse get daily?
2. How much flaxseed?
3. Is molasses good for a horse, and how much?
4. Are eggs good for a stallion, and how many daily?
5. What food would you recommend for fitting a foal for exhibition?
6. How much linseed meal should a fattening cow get daily. J. D. M.

Ans.—1. About a teacupful.
2. About the same quantity as No. 1 of boiled flaxseed.
3. Yes; commence with a pint and gradually increase the quantity, until you reach half a gallon. If this does not tend to purge, you can continue with the quantity. Dilute with hot water, and sprinkle or mix with food.
4. Yes; eggs are good food for mostly any animal. A stallion could take a dozen daily.
5. All the finely chopped oats he will eat, and, of course, the dam's milk. Give regular exercise.
6. About the same as No. 1, if it is flaxseed meal. If it is ground oil-cake meal, about one pound to begin with, and increase to two pounds. V.

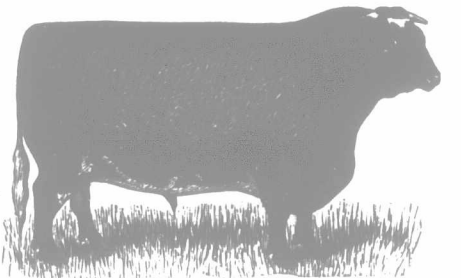
WARTS, RUMINATION, ETC.

1. I have a yearling bull that has a number of warts about his head and more coming on the body. Can you tell me how to get rid of them? They are of the pointed type. I have been using castor oil, and more come just where I use it, and none go away.
2. His sire and dam never had a wart on. Do you think his get will be affected?
3. If a Holstein heifer calf is worth \$40, what value would you put on twin heifers (from same dam and sire) for breeding from.
4. Can a cow be made to raise and re-masticate corn or pea meal, or heavy chop? Is it known how light the grain, fed alone, has to be in order to be re-masticated? G. H. O.

Ans.—1. If flat on the skin, they may be removed by touching with silver nitrate (lunar caustic). If they have a long neck, they may be clipped off with shears, scaring the wound if much bleeding occurs; or may be removed by tying a horsehair or silk thread tightly around the base.

2. We do not think so.
3. If the calves are equally good individuals, they should be of equal value at same age. Twin heifers are as likely to breed as singles.
4. The main purpose of the rumen, or first stomach, is to serve as a storehouse for food. The food being returned to the mouth is reduced to greater fineness by chewing, after which it is again swallowed. The second time it passes either to the rumen or to the third stomach. The second stomach is really a chamber or part of the paunch or rumen, and contains much fluid, which serves to force the food into the gullet and up to the mouth for remastication. It is probable that on being reswallowed, most of the food again drops into the paunch, and from here the finer portions are forced directly into the third stomach. The action of the first three stomachs is preparatory for the most part, to what occurs in the fourth, where digestion goes on rapidly. The authorities do not appear to be clear as to whether, where finely ground meal alone is fed, remastication takes place. The chances are doubtless increased when some roughage, such as hay or other fodder, is added.

COOPER SHEEP DIP
Standard of the World
for 60 years. Used on 250 millions annually. **One dipping kills Ticks, Lice and Nits.** No smell. Keeps flock clean a long time. Increases growth of wool. **Dipping Tanks at cost.** Send for Pamphlet to Chicago. **If local druggist cannot supply send \$1.75 for \$2 (100 gal.) pkt. to** EVANS & SONS, Ltd., Montreal and Toronto. WM. COOPER & NEPHEWS, Chicago, Ill. o



Arthur Johnston
GREENWOOD, ONT.

Offers the following:

- 5 imp. bulls, all registered in E. H. B.
- 7 high-class home-bred bulls, all by imp. sires, and from imp. or pure Scotch cows.
- 7 imp. cows and heifers.
- 7 very fine heifers of our own breeding, by imp. sires, and mostly from imp. dams. om

SHORTHORNS

Still have a few good young bulls to offer. Also an exceptionally good lot of heifers, among which there are show animals. Prices easy.

CATALOGUE.

H. CARGILL & SON, CARGILL, ONT.
JOHN CLANCY, Manager. om

MAPLE SHADE SHORTHORNS



Nine young bulls fit for service. Showing the finest Cruickshank breeding.

Good Size, Quality, Flesh and Bone.

Inspection invited. Catalogues on application. om

JOHN DRYDEN & SON, Brooklin P.O., Ont.

PINE GROVE STOCK FARM
ROOKLAND, ONTARIO, CANADA.

Breeders of choice
SCOTCH SHORTHORNS
and SHROPSHIRE.

W. C. EDWARDS & CO., Ltd., Props.
JOSEPH W. BARNET, Manager. om

T. DOUGLAS & SONS,
Strathroy, Ontario.

SHORTHORNS and CLYDESDALES

Present offerings: 12 young bulls of No. 1 quality, ready for immediate service; also cows and heifers of all ages. Also one imp. stallion and two brood mares. Prices reasonable. Visitors welcome. Farm one mile from town. om

MAPLE LODGE STOCK FARM

1854-

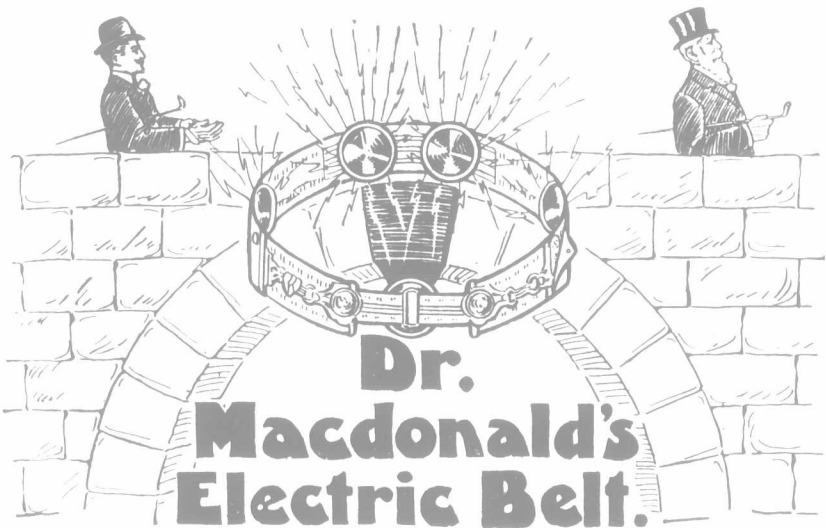
Eight very choice young bulls, of the best breeding and from first-class milking cows. A few handsome heifers also for sale, and a few Leicesters. om

A. W. SMITH, Maple Lodge P.O., Ont.

For Sale—Some Young Cows, with calves at foot, and heifers.

BELL BROS., The "Cedars" Stock Farm, Bradford, Ont. om

Why Should Not Your Span of Life Be Three Score Years and Ten?



The keystone to a long span of life is health, and with health any man or woman may reasonably expect to attain a ripe old age. Yet how many nowadays do so? How many fall e'er they are half way across Life's Bridge? Alas! only too many! But there is no need for this. Any man or woman CAN, if they will, increase the length of their span of life, if they will only see that the span is fitted with a good Keystone.

The Keystone of Health.

One drop of prevention is worth a dozen bottles of medicine. Therefore, see that the keystone of your life is secure and strong. Look after your health. Electricity is the greatest force known to man. It outrivals the force of Niagara even, and without it man cannot live. In his daily work, be it in the office, the workshop, or the field, man is constantly using up his natural supply of Electricity. The more strenuous his life, the more electricity he needs to enable him to live to a hale and hearty old age. Perhaps in his youth he has been prodigal.

"The excesses of youth are drafts on our old age; payable with interest about thirty years after date."

(As Colton, the eminent, said). Therefore, see that YOU, who read these lines, have no drafts still unpaid. Store up your Electricity by wearing

Dr. Macdonald's Electric Belt

It will save you from many an anxious moment, and many an hour's pain and sickness; to say nothing of hard cash. If you feel tired and heavy, if your liver is not acting properly, if you have kidney trouble or rheumatic pains, if you have lost your manly vigor, do not hesitate a moment, but get my Electric Belt.

Free Trial for Ninety Days

Not a copper down; simply drop me a postal with your name and I will forward you, at once, one of my latest Improved High-grade Electric Belts Free. You can use it three months, then pay me if cured, and the price will be only half what others ask for their inferior belts. If not cured, you return the Belt to me at my expense. I am willing to trust you entirely, knowing that I have the best and most perfect Belt ever invented, and nine men in ten always pay when cured.

I WILL TRUST YOU—This modern Belt is the only one that generates a powerful therapeutic current of electricity without soaking the battery in vinegar as all other belts do, and it is guaranteed never to burn. It is a certain and positive cure in all cases of Rheumatism, Varicocoele, Dyspepsia, Losses, Weak Back, Nervousness, Kidney, Liver and Stomach Troubles and Weakness brought on by abuse and excess.

I WILL GIVE FREE to each person writing me one copy of my beautiful Illustrated Medical Book, which should be read by all men and women. Drop me a postal, and I will send it to you FREE, in sealed wrapper. If you are weak in any way, delay no longer, but write to-day for my splendid book and Belt free. Write to-day.

DR. J. Q. MACDONALD, 8 Bleury Street, Montreal, Que.

TROUT CREEK SHORTHORNS

A few very choice bulls and females, both imported and home-bred, with superior breeding.

SEND FOR CATALOGUE.

JAMES SMITH, om
MANAGER.

W. D. FLATT,
HAMILTON, ONT.

GOSSIP.

The modern highwayman approached in an automobile, ran down the citizen and then demanded his watch.

"You are taking advantage of me," protested the citizen.

"Not at all," assured the highwayman. "I want your watch to time my machine so I will not be arrested for fast driving."

When a Scotch schoolmaster entered the temple of learning one morning, he read on the blackboard: "Our teacher is a donkey." The pupils expected there would be a cyclone; but the philosophic pedagogue contented himself with adding the word "driver," and opened the school with prayer as usual.

Sunnyside Stock Farm, near Howick Station, Que., is well and favorably known as a breeding ground of high-class Ayrshire cattle, which Mr. John W. Logan, the genial proprietor, is always pleased to show to anyone in want of such. His herd numbers about 85 head, and are a big, strong lot. The cows have the appearance of being heavy milkers, having well-shaped udders and large teats. The stock bull, which Mr. Logan is offering for sale, Leader of Meadowbank, is in good breeding condition, and is made up of dairy conformation and qualities. He won first prize for calf under one year at the Pan-American, Buffalo, in a strong class in 1901. To anyone wanting a good Ayrshire bull we would say we think Mr. Logan is offering him very cheap. He also has some bulls and heifers, by the above mentioned sire, as good as any it has been our pleasure to inspect. The barn in which they are housed is one of solid comfort, well lighted (a point that is very much neglected in most stables); water is supplied by a windmill, and is constantly before each cow, the feed being kept overhead in the same building; a stationary thresher is run by a tread-power, so the threshing can be done during stormy weather, the whole outfit being inside the building. The grain is usually threshed just as the straw is required, consequently there is no waste of that commodity. When wanting good Ayrshires, write J. W. Logan, Howick Station, Que., formerly Allan's Corners.

QUESTIONS AND ANSWERS. Veterinary.

TREATING LUMP JAW.

I have a heifer coming three years old, has just calved. She has a lump on her jaw about the size of an egg. Could we use the milk or cream while we are treating her with iodide of potassium? Will the lump disappear when she is cured?

J. C.
Ans.—You would probably run no risk in so doing; but during treatment you might allow the calf to suck the cow. The lump should disappear, though possibly a slight thickening of the skin might be felt.

DISTEMPER—DEHORNING CALVES.

1. Distemper is very bad among the horses here, and one of our horses has it. Would you kindly tell me in your next paper what is the best to do for it?

2. Give a recipe for killing the horns on young calves.

H. S.
Ans.—1. Place the patient in a comfortable, well-ventilated stall, steam the nostrils well two or three times daily by holding the head over a pot of boiling water, or a bag of hay on which boiling water is poured; rub the throat twice daily with equal parts raw linseed oil, oil of turpentine and spirits of ammonia for two days. In the meantime, apply warm poultices an hour after rubbing, and do not allow them to get cold. Feed on soft food, and as soon as abscesses form, lance and allow escape of pus. Give internally twenty drops carbolic acid three times daily. When complications occur, or the disease appears in what is called irregular strangles, each case requires treatment according to symptoms, and this can be given only by the personal attention of a veterinarian.

2. Procure from your druggist a stick of caustic potash, and touch the embryo horn carefully with the moistened end of the stick.

Obstinate Coughs and Colds.

The Kind That Stick.

The Kind That Turn To Bronchitis.

The Kind That End In Consumption.

Consumption is, in thousands of cases, nothing more or less than the final result of a neglected cold. Don't give this terrible plague a chance to get a foot-hold on your system.

If you do, nothing will save you. Take hold of a cough or cold immediately by using

DR. WOOD'S NORWAY PINE SYRUP.

The first dose will convince you that it will cure you. Miss Hannah F. Fleming, New Germany, N.S., writes:—"I contracted a cold that took such a hold on me that my people thought I was going to die. Hearing how good Dr. Wood's Norway Pine Syrup was, I procured two bottles and they effected a complete cure."

Price 25 cents per bottle. Do not accept substitutes for Dr. Wood's Norway Pine Syrup. Be sure and insist on having the genuine.

THE T. MILBURN CO., LIMITED, TORONTO, ONT.

The "STAY THERE" Aluminum Ear Markers are the best. Being made of aluminum they are brighter, lighter, stronger and more durable than any other. Fit any part of the ear. Nothing to catch on feed trough or other obstacle. Your name, address and any series of numbers on each tag. Sample tags, catalogue and prices mailed free. Ask for them. Address WILCOX & HARVEY MFG. CO. 194 Lake St., Chicago, Ill.

JOHN GARDHOUSE & SONS

Highfield P. O., Ont., Breeders of Scotch and Scotch-topped Shorthorns, Shire Horses, Lincoln and Leicester Sheep.

A good selection of young stock of both sexes always on hand for sale. Scotch Prince (Imp.), Vol. 6, 60 head of herd. Royal Albert (Imp.), at head of stud. Thrus 25 miles from Walsby, & T. R. and O. F. R., and electric egg from Toronto.

Shorthorn Cattle and Lincoln Sheep

Shorthorn bulls, cows and heifers for sale at greatly reduced prices for the next 60 days.

J. T. GIBSON, Denfield, Ont.

Scotch Shorthorns

Herd headed by Imp. Royal Champion. Young stock for sale from Imp. sires and dams. For particulars write to

ED. ROBINSON, Markham Sta. & P. O. Farm within town limits.

For Sale—Shorthorns, imported and home-bred; both sexes; herd headed by Imp. Royal Prince. Also Oxford Down sheep. All at reasonable prices.

JOHN McFARLANE, Box 41, Dutton P. O., West-Can., Ont. Stations M. C. R. and P. M.

SPRING VALLEY SHORTHORNS

Good bulls at reasonable prices, out of good Scotch cows, and by such bulls as Bapton Chancellor (Imp.), Scottish Beau (Imp.), Nonpareil Archer (Imp.), Clipper Hero, etc. For further particulars, apply to

KYLE BROS., Ayr, Ont.

Shorthorn Bull—Provoat = 3:85 = 4 years old, in prime condition sure and active; a grand stock bull. Will sell or exchange for another. RICHARD WILKIN, Springfield Stock Farm, o Harriston, Ont.

LIVE-STOCK EAR LABELS

Farmers and ranchers will find these labels very useful. Write for particulars and prices. Address: F. G. JAMES, om Bowmanville, Ont.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

Sheep Shearing.

With up-to-date flockmasters, the old-fashioned practice of compelling the sheep to wear their winter coats through the warm weather of April and May, then plunging them into a river under the pretext of washing their fleeces, has long since been discarded, and the sheep are sheared, unwashed, before they go to grass. The shearing is done before seeding commences, or on a rainy day during the season, thus economizing time. Sheep with heavy fleeces suffer from the heat in the early spring months, especially if they are infested with ticks, and in many cases lose part of their wool by rubbing and scratching against fences in the attempt to rid themselves of the annoyance of these vermin. With this discomfort they lose flesh, or at least fail to gain, and there can be little, if any, growth of wool under such uncomfortable conditions. There is often considerable loss of wool from its becoming clotted with dung on their hind parts when turned out to pasture on the soft grass, and at this stage, fleeces are apt to become matted or cotted, which reduces the selling price by nearly one-half. No animal, save the cat, is more averse to wetting its feet than the sheep, and it is a cruel practice to plunge the timid creatures into cold water. We have known not a few cases where a sheep died in the hands of the washer from sheer fright, or the shock of being forced to jump from the bank of a creek into the turbid stream.

In other instances colds and rheumatism have been contracted not only by sheep, but by the men engaged in the operation, resulting in permanent ill health. Cold water, at best, can but very partially cleanse a fleece, and if the market-price per pound for unwashed wool be discounted by one-third or more, it is nearly if not quite made up in the extra weight, and is more than compensated for by the improvement in the condition of the sheep and the rapid growth of the new wool, which will be realized in the next crop.

In the case of young sheep in good condition, there is practically no risk in shearing early in April, if their quarters are fairly comfortable, and they are kept closed in for a few days. In the case of breeding ewes or sheep in very thin condition, of course, the risk is greater, and we do not advise shearing them before May, unless a very warm spell of weather be taken advantage of. Nor would we shear the ewes before lambing, unless they were in very good condition, and due to lamb late.

A shearing floor may be constructed right in the sheep pen by laying down boards enough to make a platform about six feet wide, and nailing battens across them. This placed close to the wall on one side answers the purpose very well, and may be stood up and tacked to the wall when not in use. It is well to trim the feet of each sheep before commencing to shear it, as the hoofs are apt to be overgrown from standing on soft bedding, and foot rot is liable to be contracted by the accumulation of dirt under this growth. If there are ticks on the ewes when shearing, it is good practice to rub them over with a strong solution of sheep dip before letting them go, as the ticks will quickly transfer themselves to the lambs. When all are shorn, the lambs should be dipped to clean them of ticks, and then little care will be necessary for months, as all will be in a thriving condition.

Among official records of 39 Holstein-Friesian cows tested from March 25th to 30th, 1905, are the following owned in Canada: Maple Grove Belle Pauline 75592, age 2 years 8 months 24 days, days from calving, 26; Milk, 401.9 lbs.; per cent. fat, 3.48; fat, 14.001 lbs. Owner, H. Bollert, Cassel, Ont. Canary Calamity Countess 67566, age 2 years 2 months 10 days, days from calving, 9; Milk, 296.6 lbs.; per cent. fat, 3.94; fat, 11.676 lbs. Owner, George Rice, Tillsonburg, Ont. Bessie Covert Rose 66544, age 2 years 5 months, days from calving, 7; Milk, 303.8 lbs.; per cent. fat, 3.29; fat, 10.015 lbs. Owner, George Rice, Tillsonburg, Ont. Countess Calamity Queen 67567, age 2 years 2 months 2 days, days from calving, 17; Milk, 254.5 lbs.; her cent. fat, 3.65; fat, 9.283 lbs. Owner, George Rice, Tillsonburg, Ont. Calamity Jane 2nd's Countess 63885, age 2 years 11 months 10 days, days from calving, 11; Milk, 219.9 lbs.; per cent. fat, 3.88; fat, 8.522 lbs. Owner, George Rice, Tillsonburg, Ont.

We Paid \$100,000

For Liquozone, Yet We Give You a 50c. Bottle Free.

We paid \$100,000 for the American rights to Liquozone; the highest price ever paid for similar rights on any scientific discovery. We did this after testing the product for two years, through physicians and hospitals, in this country and others. We cured all kinds of germ diseases with it—thousands of the most difficult cases obtainable. We proved that in germ troubles it always accomplishes what medicine cannot do. Now we ask you to try it—try it at our expense. Test it as we did; see what it does. Then you will use it always, as we do, and as millions of others do. You will use it, not only to get well, but to keep well. And it will save nearly all of your sickness.

Kills Inside Germs.

Liquozone is not made by compounding drugs, nor is there alcohol in it. Its virtues are derived solely from gas—largely oxygen gas—by a process requiring immense apparatus and 14 days' time. This process has, for more than 20 years, been the constant subject of scientific and chemical research.

The result is a liquid that does what oxygen does. It is a nerve food and blood food—the most helpful thing in the world to you. Its effects are exhilarating, vitalizing, purifying. Yet it is a germicide so certain that we publish on every bottle an offer of \$1,000 for a disease germ that it cannot

kill. The reason is that germs are vegetables; and Liquozone—like an excess of oxygen—is deadly to vegetal matter.

There lies the great value of Liquozone. It is the only way known to kill germs in the body without killing the tissues, too. Any drug that kills germs is a poison, and it cannot be taken internally. Medicine is almost helpless in any germ disease. It is this fact that gives Liquozone its worth to humanity. And that worth is so great that we have spent over one million dollars to supply the first bottle free to each sick one we learned of.

Germ Diseases.

These are the known germ diseases. All that medicine can do for these troubles is to help nature overcome the germs, and such results are indirect and uncertain. Liquozone attacks the germs, wherever they are. And when the germs which cause a disease are destroyed, the disease must end, and forever. That is inevitable.

- | | |
|--------------------|---------------------|
| Asthma | Hay Fever—Influenza |
| Abscess—Anemia | Kidney Disease |
| Bronchitis | La Grippe |
| Blood Poison | Leucorrhea |
| Bright's Disease | Liver Troubles |
| Bowel Troubles | Malaria—Neuralgia |
| Coughs—Colds | Many Heart Troubles |
| Consumption | Piles—Pneumonia |
| Colic—Croup | Pleurisy—Quinsy |
| Constipation | Rheumatism |
| Catarb—Cancer | Scrofula—Syphilis |
| Dysentery—Diarrhea | Skin Diseases |
| Dandruff—Dropsy | Stomach Troubles |

Dyspepsia
Eczema—Erysipelas
Fever—Gall Stones
Goitre—Gout
Gonorrhoea—Gleet
Throat Troubles
Tuberculosis
Tumors—Ulcers
Varicocele
Women's Diseases

All diseases that begin with fever—all inflammation—all catarrh—all contagious diseases—all the results of impure or poisoned blood.

In nervous debility Liquozone acts as a vitalizer, accomplishing what no drugs can do.

50c. Bottle Free.

If you need Liquozone, and have never tried it, please send us this coupon. We will then mail you an order on a local druggist for a full-size bottle, and we will pay the druggist ourselves for it. This is our free gift, made to convince you; to show you what Liquozone is, and what it can do. In justice to yourself, please accept it to-day, for it places you under no obligation whatever.

Liquozone costs 50c. and \$1.

CUT OUT THIS COUPON.
For this offer may not appear again. Fill out the blanks and mail it to The Liquozone Company, 458-464 Wabash Ave., Chicago.

My disease is.....
I have never tried Liquozone, but if you will supply me a 50c. bottle free I will take it.

.....
D306

.....
Give full address—write plainly.

Any physician or hospital not yet using Liquozone will be gladly supplied for a test.

Queenston Heights Shorthorns

FOR SALE—Two Scotch bulls, from imported sires and dams. Strictly high-class and of choicest breeding.

Write for particulars.

HUDSON USHER, Queenston, Ont.

FLETCHER SHORTHORNS

Our herd of breeding cows, both imported and home-bred, are of the most fashionable Scotch families. Among the really good sires which have been used are Spicy Robin 22260, winner of 3rd prize at Dominion Exhibition, Toronto, and Joy of Morning (imp.) 32070, winning 1st prize at same exhibition, 1904. Stock of either sires for sale, GEORGE D. FLETCHER, Binkham P. O., Ont. Erin Shipping Station, O. P. R.

Belvoir Stock Farm

SHORTHORN BULLS, various ages; imported and home-bred, by imp. Gay Lothario, a Cruickshank Lavender.

CLYDESTALLION, 2 years old; sire imp., dam a winner, grandam 1st Highland Show.

YORKSHIRES—Sows and boars, various ages; not akin. Three imp. boars and 5 imp. sows to select from, and their progeny. Prices right. Also honorable dealing.

RICHARD GIBSON, Delaware, Ont.

SHORTHORNS!

One red bull calf, and one red three-year-old heifer to calf May 1st. All from good milking strain. To be sold cheap.

GLENAVON STOCK FARM, W. B. Roberts, St. Thomas Stn. Sparta P. O.

CLEAR SPRING STOCK FARM

HIGH-CLASS SHORTHORNS

A specialty. Present offerings young bulls and heifers from first-class stock. Correspondence or inspection of herd invited.

JAS. BROWN, Thorold Sta. & P. O.

SHORTHORNS and CLYDESDALES

Spicy Count (Imp.) 5 thick, fleshy bulls, 12 months old; a few heifers and 6 splendid Clydesdales; 3 mares registered. All young.

JAS. McARTHUR

Pine Grove Stock Farm. GOBLE'S, ONT.

First-class Shorthorns

Young cows and heifers of fashionable breeding. Also Shorthorns of different ages. Write for prices, etc., to T. J. T. COLE, Bowmanville Stn., G. T. R. o Tyrone P. O.

J. A. LATTIMER, Box 16, Woodstock Ont.

Shorthorn Bulls.

Offers a number of Yorkshire sows in pig to imp. boar. All at prices that will induce you to buy. Write for further particulars.

YOUNG SHORTHORNS for sale, either sex, got by that grand Golden Drop show bull, Kinellar Stamp (imp.). Inquiries cheerfully answered.

SOLOMON SHANTZ, Haysville P. O. Plum Grove Stock Farm. o Baden Sta.

140 - JERSEYS - 140

to choose from. 74 First Prizes, 1904. We have what you want, male or female.

B. H. BULL & Son, Brampton, Ont. Phone 68.

Barren Cow Cure

makes any animal under 10 years old breed, or refund money. Given in feed twice a day. "With your Barren Cow Cure I succeeded in getting two of my cows in calf—one 10 years old, and had previously been served repeatedly, to no purpose"—says M. E. Reeder, Muncy, Pa. Particulars from L. F. SELLECK, Morrisburg, Ont.

Jerseys

Bull calf for sale, from Dido of Pine Ridge, a granddaughter of One Hundred Per Cent, and sired by Ida's Sonny, a son of Canada's John Bull the 5th Junior. Also Cattle Rock eggs for sale, \$1 per setting of 13. WILLIAM WILLIS, o Newmarket, Ont.

AYRSHIRES FROM A PRIZEWINNING HERD

Hover-a-Blink, one of my stock bulls, and heifers for sale at reasonable prices. For particulars, etc., write to W. M. STEWART & SON, Campbellford Sta. o Merie P. O., Ont.

Springbrook Ayrshires

are heavy milkers and high testers. For sale: Three bulls, 9 months old; 2 bull calves, dropped in January last; also females of all ages.

W. F. STEPHEN, Huntingdon, Que. P. O. box 101.

FOR SALE: HIGH-CLASS AYRSHIRES

Special offering for next 30 days: Two cows at \$85 each; one bull calf, \$35; one yearling bull, \$45; also a few heifer calves, from \$20 to \$40 each, according to age. Poultry—Eggs for hatching, from W. Wyandottes, Silver-gray Dorkings, B. P. Rocks, Houdans and Black Spanish at \$2 per 15 eggs. All correspondence cheerfully answered.

WILLIAM THORN, Trout Run Stock Farm, Lynedoch, Ont.

WOODROFFE AYRSHIRES

25 head for sale, 4 to 20 months old, from cows named in my herd record, and sired by 1st prize bull at St. Louis World's Fair.

YORKSHIRE SWINE of best breeding always on hand at moderate prices. Terms to suit purchasers. Inspection invited.

J. G. CLARK, - Ottawa, Canada.

AYRSHIRES

Do you want to get a grand young bull or heifer, with breeding and individuality as good as the best? If so, write to

W. W. BALLANTYNE, Stratford Stn. and P. O., Ontario.

MAPLE CLIFF DAIRY AND STOCK FARM

Breeders of Clydesdale Horses, Ayrshire Cattle, Berkshire and Tamworth Pigs. Young stock for sale at all times.

R. H. H. & CO., Eltonburg, Ont. Farm adjoins Central Experimental Farm.

MEADOWSIDE FARM

Ayrshire Cattle, Shropshire Sheep, Berkshire Pigs, B. P. Rocks and B. Orpingtons. Eggs for hatching \$1 per doz. Young stock for sale.

A. R. FULL, Carleton Place, Ont.

AYRSHIRES.

4 choice bull calves four to six months old; 1 bull fit for service. Females all ages, bred for size and production. DAVID LEITCH. Prices right.

Cornwall, G. T. R. CORNWALL, ONT. Apple Hill, C. P. R.

We want you to remember that HOLSTEIN COWS

owned by me (formerly at Brookbank Stock Farm, Currie's) won all sorts of honors in milk tests at Toronto, Ottawa and Guelph (6 years), and among many other prizes in the show-ring, including sweepstakes at Toronto and Pan-American in competition with the best in the world. Our herd is always improving. We have now 5 cows whose official test average 22.4 lbs. butter in 7 days, 10 cows whose official test average 20.4 lbs. butter in 7 days, 15 (3 yrs. and up) whose official test average 19.6 lbs. butter in 7 days, 10 (3 and 4 yrs.) whose official test average 17 lbs. butter in 7 days, 10 heifers (average age 26 mos.) whose official test average 11 lbs. butter in 7 days. That is our idea of a dairy herd, and the kind of stock I handle. A few good young bulls, 1 to 13 mos., for sale.

GEO. RICE, Annandale Stock Farm, Tillsonburg, Ont.

SHANNON BANK STOCK FARM

FOR AYRSHIRES and YORKSHIRES

Young stock of both sexes for sale from imported stock.

W. H. TEAN, Cedar Grove, Ont.

HOLSTEIN-FRIESIANS at RIDGEDALE FARM

6 bull calves for sale, from 3 to 8 months old, bred from rich milking strains. Special prices to quick buyers. Port Perry, G. T. R., and Myrtle, C. P. R., Shipping Stations, Ontario County. o R. W. Walker, Utica P. O., Ont.

HIGH-CLASS HOLSTEINS and TAMWORTHS

Bulls ready for service, by the invincible sweepstakes bull, Judge Akkrum De Kol 3rd, and out of choice dams; also some choice bull calves. Tamworths of the most approved type. A few sows in farrow to offer. Write at once for prices.

A. C. HALLMAN, Waterloo Co., Breslau, Ont.

FOR SALE: A handsome FIVE-YEAR-OLD BULL

Sire, Manor De Kol's Prince, Dam, Belle Burke Mechthilde. A bull with excellent daughters, proved last season in their 2-year-old form. Price right, as I wish to dispose of him, as I have no further use for him.

J. A. CASKEY, Madoc, Ont.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

GOSSIP.

Mr. John Kerr, Redhall, Wigton, Cumberland, has sold a couple of big-sized, good horses to Mr. Thomas J. Berry, Hensall, Ontario. These are Scotland's Stamp (11522) and Champion Again (12522). The former was bred by Mr. Alexander Wilkie, Pitlandie, Stanley, and got by Montrave Kenneth, out of a Juryman mare, while Champion Again was bred by Messrs. Wood, Glencogo, and got by Neil Gow, out of a Royal Champion mare. They are of a size and class which would suit this country, but their advent in Canada may bring increased orders here, so says the Scottish Farmer.

CLYDESDALE STALLIONS FOR CANADA.

Mr. Walter S. Park, Hatton, Bishop-ton, has sold three well-bred stallions to Mr. T. H. Hassard, Millbrook, Ontario, Canada. These are all of good breeding and quality, and like suiting the foreign demand. Amongst them is the Hiawatha horse, Braes o' Yett (11282). He was bred at the farm of that name by Mr. Andrew Douglas, and through his dam, Lady Caroline, traces back to the celebrated breeding horse Gartsherrie. Royal Errant (12326), which accompanies him, was bred by Mr. D. R. Christie, Broughmore, and was sired by Royal Favorite, out of a Knight Errant mare, while the third animal, Good Quality (12591), was bred by Mr. Thomas Pate, Wester Middleton, Gorebridge, and got by Royal Hampton, out of a mare by M'iver. These are thick, blocky horses of a good type, and we trust Mr. Hassard will be lucky with them.—[Scottish Farmer.

Messrs. R. Mitchell & Sons, Nelson, Ont., write: "Recent sales of Short-horns from our herd are: To J. C. Littlejohn, Highgate, Ont., one of the best bulls we have ever bred. This calf is by Greengill Victor (imp.), and out of Imp. Rosy. To Walter Renwick, Hunt-ingtonfield, Ont., a very promising ten-months-old bull calf, by Imp. Strawberry Chief, and out of Imp. Augusta Girl, of the Bruce Augusta tribe; to John Hiseg, Cashtown, Ont., a fourteen-months-old bull, by Greengill Victor, and out of Imp. Princess Victoria. This bull is a very showy, blocky one that will make a getter of the right kind, being of the Cruickshank Victoria family. To Geo. McKee, Winthrop, Ont., our herd bull, Imp. Greengill Victor, the best stock bull we have ever owned, being a richly-bred Princess Royal, sired by Lavender Victor, and out of Princess Royal 52nd, by Sea King. Mr. McKee also selected from our herd the imported cow, Merry Princess, a Campbell Clementina, by Scottish Prince. This cow is forward in calf to Greengill Victor, and is one of the choicest individuals, being the best heifer calf in our 1901 importation."

The excellent herd of Scotch and Scotch-topped Shorthorns belonging to Mr. David Birrell, of Greenwood, Ont., was recently seen by a representative of the "Farmer's Advocate," and found in fine condition. This herd was established over 30 years ago, and has had the benefit of a long list of high-class imported sires of the most approved Cruickshank and Campbell, of Kinellar, breeding, mated with females of similar breeding and character. The present stock bull is Imp. Royal Prince (41490) of the favorite Golden Drop family, bred at Kinellar. This grand stock bull was the sire of most of the splendid young things in the Thistle Ha' dispersion sale in January last which brought such high prices. A few excellent young bulls of serviceable age are offered for sale, sired by Imp. Blue Ribbon, of the choice Rosemary tribe, and from the Crimson Flower and other families, which have produced winners of championship honors at Toronto and other leading shows. Some capital heifers and young cows are also being offered. Parties looking for young bulls of the right stamp should write Mr. Birrell for prices, or better still call and see the stock at his farm near Claremont Station, C. P. R., or Pickering, G. T. R.

Nerve Racked Men and Women

will find Balm for their Terrible Sufferings in MILBURN'S HEART AND NERVE PILLS.

They tone up and strengthen the nerves, build up the muscles of the heart, and purify and enrich the blood. They put the nervous system in perfect working order, and restore health and vigor to both body and brain.

Miss Edythe Lindsay, Stromness, Ont., writes:—

"It affords me great pleasure to say that I have experienced great relief from your Heart and Nerve Pills. For over two years I suffered from violent palpitation of the heart, was very nervous and easily startled. I was in an extremely weak condition before I started to take the pills, but four boxes effected a complete cure. I cannot praise them too highly to those suffering from nervous weakness and heart troubles."

Price 50 cents per box, or \$ for 3 boxes. All dealers, or THE T. MILBURN CO., LIMITED, TORONTO, ONT.

MERTON LODGE HOLSTEINS



Are prize-winners as well as producers.

Forty head to select from. Such great sire as Sir Hector De Kol at head of herd. Present offerings: Young bulls, cows and heifers, all ages. Am booking orders for our entire crop of spring calves with gilt-edge pedigrees. We quote prices delivered at your station. Safe arrival guaranteed.

H. E. GEORGE, ORAMPTON, ONT.

Woodbine Holsteins

Herd headed by Sir Mechtilds Posch, whose four nearest ancestors average 25 lbs. of butter in 7 days in official tests. Cows, heifers and young bulls, sired by Homestead Albino Paul DeKol, a grandson of DeKol 2nd Paul DeKol, sire of 41 A.R.O. daughters, the greatest sire of the breed. Write for extended pedigrees and prices.

A. KENNEDY, AYR, ONT.

Maple Grove Holsteins—In official tests they stand 1st for cow, 1st for 3-year-old, 1st 2-year-old and 1st under 2 years old. Special inducements are offered in high-class bulls to quick purchasers. For particulars address,

H. BOLLEET, Cassel, Ont.

Maple Glen Holsteins—Special offering: Two bulls, fit for service, one from a 70-lbs.-a-day dam. A choice pair of bulls, 9 months old, one from the test cow Juanita Sylvia, first sister of Carmens. The other from a first-prize Toronto winner. Also a few females.

C. J. GILROY & SON, Glen Buell, Ont.

Lyndale Holsteins

Over 50 head to choose from. A number of young cows and heifers for sale. Six young bulls from 8 to 11 months old.

BROWN BROS., Lyn, Ont.

Riverside Holsteins

80 head to select from. 8 young bulls from 6 to 10 months old, whose dams have official weekly records of from 17 to 21 lbs. butter; sired by Imp. Victor de Kol Pietertje, C. A. R. of M. No. 3, and Johanna Bue 4th Ltd.

MATT. RICHARDSON & SON, Holderness Co., Oaledonia P. O., Ont.

IMPERIAL STOCK FARM HOLSTEINS.

For Sale: Four bull calves, 5 months old, whose sire's three nearest dams average 21.75 lbs. of butter in 7 days. Also young bulls by the sire of first-prize herd at London, Ont.

W. H. SIMMONS, New Durham, Ont.

DORSET HORN SHEEP and SCOTCH SHORTHORNS

The latter representing the Nonpareil, Miss Ramsden, Missie and Gloster families exclusively, and the former comprising more Royal winners and more St. Louis prizewinners than any other flock in the world. Stock for sale all ways on hand.

John A. McGilivray, North Toronto, Ont.

"Hello," said the first merchant, "how do you find business?" "By advertising," replied the up-to-date man. Same with the stockmen.

At a combination auction sale of Aberdeen-Angus cattle at Dexter Park, Chicago, the last week of March, 59 animals sold for an average of \$174. The top of the sale for bulls was \$710, paid by L. H. Kerrick, Bloomington Ill., for Imp. Lord Fretful 62284, bred by Sir George McPherson Grant, and owned by O. G. Callahan. The top of the sale for females was \$700, paid by C. J. Martin, Churdan, Ia., for Blackbird 28rd 44727, bred and owned by M. A. Judy.

Mr. James Bowes, Strathcain, Ont., breeder of Scotch Shorthorns, in ordering a change in his advertisement, writes that his herd has wintered well, and that sales have been very good. He has a herd of 45, comprising such well-known families as Marr Floras and Stamfords, Minas, Nonpareils, Crimson Flowers, any of which are for sale.

Mr. W. H. Simmons, New Durham, Oxford County, Ont., breeder of Holstein cattle, reports the following sales from his herd: "Three heifer calves to W. H. Kells, Queensboro, Ont., which were in the first-prize herd of four calves under one year at Western Fair, London, 1904. The first-prize bull calf at London went to head the herd of Mr. R. Honey, Brickley, Ont. Second-prize bull calf at Toronto went to Mr. S. Facey, Belton, Ont. This calf's dam is a Record of Merit cow, and her sire a Record of Merit bull. The third-prize bull calf at Toronto went to Mr. A. Irwin, Crumlin, Ont. His dam and her sire are also admitted to the R. of M. She made almost 18 lbs. of butter in 7 days as a four-year-old, second largest record made in Canada of her age in 1904. Another fine bull calf went to Mr. Howard Leavens, Chisholm, Ont. His grandsire is a brother to world's champion two-year-old, Altje Posch, 27 lbs. butter in 7 days; also Mercena 8rd, 26 lbs. butter in 7 days at four years old. All the calves mentioned were sired by Isoco Pride's Pan-Am. I have a few more bulls from this sire, one to six months old, whose dams are in the R. of M. I also have calves born in September, 1904, imported in dams, sired by Prince Calamity De Kol Paul, whose dam made 17 lbs. of butter at three years old, her dam, Calamity Jane, 25 lbs. butter in 7 days. The dam of the sire of this bull, Maple Croft Maid, official test 22.93 lbs. of butter in 7 days. I have also sold to Mr. W. A. Hartley, New Durham, Ont., a cow whose daughter made an official test of 18 lbs. butter in 7 days."

Mr. J. E. Brethour, Burford, Ont., breeder of Yorkshire hogs, writes: "Our winnings at St. Louis comprised 12 firsts, 14 seconds, 11 thirds, 5 fourths, 4 championships, 4 reserve championships, 2 grand championships and 2 reserve grand championships, and premier championship for breeder of Large Yorkshires. Every animal shown by us was bred and fed at Oak Lodge, with one exception, and this one traces back directly to stock from our herd. The winning of grand championship is a small thing to read about, but to produce an animal able to win, not only against other animals of his own breed, but against the pick of all other breeds, requires more than theoretical training. Oak Lodge Frederick, the grand championship barrow, was shown first in class for Yorkshire barrows, over 6 and under 12 months, here he won first, and afterwards won championship for Yorkshire barrow, any age. He was then pitted against the Champion barrows, over 6 and under 12, for each of the other breeds, winning the grand championship over all. He was also given reserve grand championship against all breeds and ages. The production of this barrow is not, by any means, a chance shot, but is rather the consummation of breeding to an ideal. A glance at his breeding shows him to descend through seven generations of Cinderella sows, perhaps the most celebrated family or strain of Yorkshire pigs in America. His sire is a member of that other noted family of Oak Lodge Yorkshires, being a son of Oak Lodge Julia 7th. The sire and dam of this wonderful pig are still in use at Oak Lodge."

Better Fruits—Better Profits. Better peaches, apples, pears and berries are produced when Potash is liberally applied to the soil. To insure a full crop, of choicest quality, use a fertilizer containing not less than 10 per cent. actual Potash. Send for our practical books of information; they are not advertising pamphlets, booming special fertilizers, but are authoritative treatises. Sent free for the asking. GERMAN KALI WORKS, 93 Nassau St., New York.

Lincolns are Booming

We have only a few more ewe and ram lambs and breeding ewes for sale. We have seven choice young bulls, Scotch topped, and a grand lot of heifers and young cows for sale at reasonable prices. Write or come and see us.

F. H. NEIL & SONS, LUCAN, ONT.

Sheep Breeders' Associations.

American Shropshire Registry Association, the largest live stock organization in the world. Hon. John Dryden, President, Toronto, Canada. Address correspondence to NORTHWELL LEVERING, Secretary, Lafayette, Indiana, U.S.A.

Champion Cotswolds—Silver medal ram, silver medal ewe, silver medal cow. Won all first prizes except one at Toronto, 1904. A number of choice ewes, bred to imported ram, for sale. R. F. PARK, Burgessville, Ont. o

SHROPSHIRE

30 yearling ewes, 45 lambs, both sexes included, from Imp. ram. For particulars write to GEO. HINDMARSH, Alton Craig P. O., Ont. o

NEWCASTLE HERD OF Tamworth Swine and Shorthorn Cattle

We have for quick sale some 60 head of Tamworth swine, including several boars ready for service. A grand lot of boars and sows, from 3 to 7 months old. A few sows bred and ready to breed. These are nearly all the direct get of Colwill's Choice, our sweetest boar at Toronto for several years. Also a beautiful Shorthorn bull calf, about ready for service; besides a few choice heifer calves, heifers well forward in calf, and cows in calf. All at moderate prices. All correspondence answered promptly. Write for what you want—we can generally supply you.

COLWILL BROS., NEWCASTLE, ONT.

TAMWORTH AND HOLSTEINS

Our Tamworths having taken a share of the prizes offered at Winnipeg Exhibition, have taken the diploma for the best herd of four sows, besides other prizes. Boars and sows from one to six months and 3 yearling sows. Also 6 choice bull calves of right type.

Bertram Hoskin, Grafton, G.T.R.

Large English Berkshires. For Sale—One choice sow, bred, and a choice lot of both sexes, from 2 to 5 months, all of the bacon type. Special prices for next 30 days.

JOHN EYLES, JR., Rose Bank Farm, Churchill, Ont.

Owing to unforeseen circumstances, I have been unable to supply customers for Poland Chinas. Write me if you want any. For sale, cheap, pure-bred Berkshire boar, registered. F. S. Wetherall, Rushton Farm, Cookshire, Que.

WOODSTOCK HERD OF BERKSHIRES

Am booking orders for spring pigs, sired by Polgate Doctor (Imp.) No. 78492. Geo. Thomson & Son, Box 1, Woodstock, Ont. o

Bargains in YORKSHIRES during March and April. Orders booked for Holsteins calves of both sexes. For description, price, etc., write R. HONEY, Minster Farm, Brickley, Ont.

CHESTER WHITES

Good bacon type, and SHROPSHIRE SHEEP. Write for prices.

W. E. WRIGHT, Glanworth, Ont.

YORKSHIRES AND LEICESTERS. FOR SALE: Boars and sows, all ages, from imported stock; also ram and ewe lambs, at reasonable prices. C. & J. CARRUTHERS, Cobourg, Ont.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

GOSSIP.

Mr. Richard Wilkin, of Harriston, Ont., advertises for sale or exchange the Scotch-bred four-year-old roan Shorthorn bull, Provost =37865=, sired by Imp. Palermo (77887), dam Imp. Scottish Ringlet, by Scottish Victor, a Sittyton Victoria, by Scottish Archer. Palermo was by Prince of Rettle, a first-prize winner at the Royal Northern Show at Aberdeen. He is grandly bred, and said to be in fine condition, sure and active. Mr. Wilkin will either sell or exchange for a suitable one, as Provost's daughters are coming of breeding age.

Mr. John McFarlane, Dutton, Ont., writes: "As our cows are now in calf for the third time, we are offering for sale the grand imported bull, Royal Prince D. H. B. =45223=, E. H. B. (82181), bred by Geo. Campbell, Whitehouse, Harthill, Aberdeenshire, sired by the Duthie-bred Golden Fame, by Lord of Fame, dam Sittyton Goldmine, by Pride of Morning His dam was Mattie (Imp.), by Lovat's Chief, by Merry Archer. Royal Prince and his stock have proven successful wherever shown. He is quite active and useful; three years old last November. He is a dark red in color and in fair condition; will weigh 2,800 lbs. I am now offering this grand animal for \$300 cash."

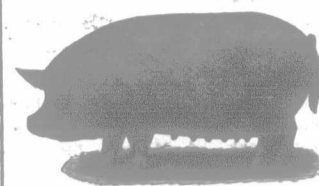
Mr. Wm. Willis, Newmarket, Ont., who advertises Jersey cattle and Barred Rock eggs for hatching, writes: "I saw an article in the 'Farmer's Advocate,' recently, by T. C. R., concerning dairying. I would like to tell you that we made from 10 cows last year the sum of \$817.45 in cash for butter and some cream, and we had besides all the butter we wanted to use in the family with milk and cream, and as we were fixing our barn last year, we had to board carpenters nearly a month. Each cow also had a live calf. I think there are others, perhaps, who make more than we do—those who ship cream all the time. However, I think we are improving a little all the time."

Mr. Robert Miller, Stouffville, Ont., writes: "Since writing you a few days ago I have sold the following Short-horns and Shropshires: To J. A. McClary, Hillhurst, P. Q., the beautifully bred fourteen-month-old Duchess of Gloucester bull, Lord of the Forest =56261=. He is a splendid feeder, has a grand coat of hair, and is a beautiful roan. His sire was the Princess Royal bull, Prince of the Forest (81943), imported by me, and sold at my sale in 1902. He has been used with great success since that time by Messrs. Chinnick, Chatham, Ont., and this calf was bred by them. His dam was, when bought by the late John I. Hobson, the choice of Arthur Johnston's herd, and she has been a wonderful breeder, she also topped Mr. Hobson's sale. This calf should be a great sire, and he is a good show bull. To A. Jamieson and Watson Bros., Greenbank, Ont., I have just sold the Mysie bull, MacIntosh—40399—(77154) 160170, imported by me, and used with great success in the herd, lately sold by Dr. R. W. Forrest, Mount Albert, Ont. He is a good red, a smooth bull in fair condition, and a good show bull when in good form. His breeding could not be better, for he has the splendid Broadhocks bull, Kruger (72798), for sire. His dam was by the greatest of all Victoria bulls, Vice-Chancellor (56681). His grandam was by Bromley, a Marr Bessie that made the highest price W. S. Marr ever realized for a bull, and his great-grandam was by the Cruickshank bull, Cleveland (33397), a Crocus of the finest breeding. Many more sires follow that are a guarantee of the best results from the use of such a bull. To H. D. Burruss, Carrollton, Ill., have sent 19 splendid Shropshire ram and ewe lambs, and 33 Cotswold ram and ewe lambs, as good as could be found in Canada. To John Kivlin, Brooklyn, Wis., have sent 23 beautiful Shropshire ewe lambs, and 52 ram lambs. I have good demand for choice bulls, and happen to be well-fixed with such as are required. Still have three imported bulls that are not too high in price."

HILLCREST HERD OF ENGLISH BERKSHIRES

JOHN LAHMER, VINE P. O.

LARGE ENGLISH YORKSHIRES



Pigs of the most approved type, of both sexes, all ages, for sale at all times. We have more imported animals in our herd than all other breeders in Canada combined.

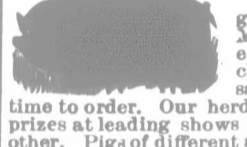
We won more first prizes at the large shows this year than all other breeders combined. We won every first but one and all Silver medals and Bacon prizes at Toronto and London and at St. Louis we furnished all the first-prize hogs in the breeding classes except two; also supplied both champions and grand champions. Prices reasonable. **D. C. FLATT & SON MILLGROVE, ONT.**

Woodstock Herd of Large White YORKSHIRES



Present offering: A choice lot of young sows, bred to Craig-crook Hero, 1st prize boar at Edinburgh, 1904. Also a number of imp.-in-dam boars and sows of September farrow. Pairs supplied not akin. Write **H. J. DAVIS, WOODSTOCK, ONT.**

SNELGROVE BERKSHIRES



A number of large, good sows, to farrow in March and April, and expect to have some choice young pigs for sale. Now is a good time to order. Our herd has won more first prizes at leading shows in Ontario than any other. Pigs of different ages for sale. Write for prices. **SNELL & LYONS, Snelgrove, Ont.**

SHORTHORNS and BERKSHIRES



Choice young sows in farrow; also young pigs and several young Shorthorn bulls. Prices very reasonable if taken at once. **JOHN BAHEY, JR., Lennoxville, Que.**

Oakdale Berkshires



Of the largest strains. Imported fresh from England. The produce of these and other noted winners for sale reasonable. Let me book your order for a pair or trio not akin. **L. E. MORGAN, Milliken Stn. and P. O.**

GLENBURN HERD OF YORKSHIRES

winners of gold medal three years in succession, offers for sale until New Year's a number of fine young sows and boars, from 3 to 4 months old, at \$12 each. **DAVID BARR, JR., Box 3, Renfrew P. O.**

ORCHARD HOME HERD (Registered)

Large English Yorkshires and Berkshires. Only choice stock kept, imported and home-bred, of most approved type; selected with great care and at high prices. We ship, express paid. Take stock back if not satisfactory. We buy our breeders, therefore best not reserved. Our motto: "Quality and square dealing." Choice young stock at reasonable prices. **S. D. CRANDALL & SONS, Cherry Valley, Ont.**

ENGLISH BERKSHIRES.

Her Grace the Duchess of Devonshire's Berkshire Herd. Winners of 102 awards in 1904, including champion against all breeds in carcass competition, London Fat Stock Show. The breeding sows are sired by the champion boar, Baron Kitchener 8403. Polegate Decoy, Polegate Damc, Polegate Dawn—winners in England, Canada and United States—were exported from this herd. For prices and particulars apply to: **O Compton Estate Office, Eastbourne, or to F. A. Walling, 7 Cavendish Cottages, Eastbourne, Sussex, England.**

For Sale—Ohio Improved Chester Whites, the largest strain, oldest established registered herd in Canada; young sows in farrow; choice young pigs, six weeks to six months old; pairs not akin; express charges prepaid; pedigrees and safe delivery guaranteed. Address: **E. D. GEORGE, Putnam, Ont.**

YORKSHIRES

for sale, all ages, from imported prize-winning stock, of both sexes. Pairs not akin. **GEO. M. SMITH, Haysville P. O., Ont.**

IMPROVED LARGE YORKSHIRES

Pigs six to ten weeks old, from imported stock. Pairs and trios not akin. Sows from four to six months old. **L. ROGERS, Emery, Ont.**

Now is the time to book your orders for young pigs for May at a low delivery. A few good young pigs on hand.

In answering any advertisement on this page kindly mention the FARMER'S ADVOCATE.

One of the best rules in conversation is never to say a thing which any of the company can reasonably wish we had rather left unsaid; nor can there be anything more contrary to the ends for which people meet together than to part unsatisfied with each other or themselves.

Mr. Arthur Johnston, of Greenwood, Ont., writes to this office as follows: "Mr. W. G. Moffat, of Teeswater, has recently bought from me an exceedingly good young Shorthorn bull, Royal Archer. He was sired by the Royally-bred Nonpareil bull, Imp. Nonpareil Archer, sold at Mr. Isaac's sale in Markham for \$700. Royal Archer's dam was Imp. Lady Lorne, by the excellently-bred Lavender bull, Pride of Lancaster. Mr. Moffat's bull is not only splendidly bred, but he is a first-class bull, and he should prove a great acquisition to the locality that is lucky enough to have him within reach."

Miss Helen Gould recently entertained at luncheon at her residence a number of little girls from a charitable institution. At the end of the luncheon Miss Gould showed to the children some of the beautiful contents of her home.

She showed them books, carved Italian furniture, tapestries, and marbles.

"Here," she said, "is a beautiful statue, a statue of Minerva."

"Was she married?" asked a little girl.

"No, my child," said Miss Gould, smiling. "She was the goddess of wisdom."

One of the oldest established herds of Ayrshire cattle in Canada is that of Mr. James Benning, of Williamstown P. O., Glengarry Co. Until quite recently, this establishment was controlled by Messrs. D. Benning & Son. A few months ago, the senior member of the firm, Mr. D. Benning, was suddenly called to his reward at the age of 79 years. Several years ago Mr. Benning was one of the leading exhibitors of Ayrshire cattle and Leicester sheep, having won silver medals and diplomas as far back as 1868, and in later years, when he has not taken so prominent a part in showing circles. There have frequently been drafts bought from this herd to strengthen other show herds. The herd now numbers between 50 and 60 head, and is a business lot; headed by Imp. Cross of Knockdon 17556, a two-year-old, imported by Jas. Roden, of Ste Anne's. This bull is mostly white, has well-sprung, deep ribs, is long in the hind quarter, and has a good head and horns. His sire was Bright Lad 2nd of Knockdon 4239, dam Cairnsaigh 4th of Aitcheson's Bank 12372. We are informed that Mr. Roden tried to buy the dam of this bull, which her owner would not price. Among the females that this sire is being used upon are several of the White Floss strain (closely connected to White Floss that won 1st and sweepstakes as a two-year-old at the Chicago World's Fair). They are a deep-bodied lot with large well-shaped udders. Several of them are sired by Saladin 6059, a sire of many prizewinners; a pair of his get after winning 1st and 2nd prize as heifer calves sold for \$300. The cream of the herd is by the above sire, one of the choice being Zilla 7219, by Saladin 6059, he by Silver King 5809, dam Ayrshire Lass W. 4810, by Scottie 3886. This cow is a very persistent milker. She won 1st in a class of 13 at Williamstown. White Floss, the winner of 1st prize and sweepstakes as a two-year-old at Chicago World's Fair, and Tom Brown, also winner of 1st and sweepstakes at Chicago, as an aged bull, were bred by this firm. They have several of the White Floss strain still in the herd. Several cows of the herd are said to give from 50 to 60 lbs. of milk per day, testing 5 per cent. butter-fat. There are several young things in the herd, among them a few bulls that have breeding behind them that should assist them to make a name for themselves. In addition to the Ayrshires, Berkshire swine and Leicester sheep of the best type are kept. An imported ram heads the flock. By the way, we noticed a diploma and silver medal won by Mr. Benning in 1867 for a ram, and improvement has been the watchword ever since.

MAKES MEN SOUND AND STRONG

Detroit Specialist Making Men's Diseases a Specialty for Years, Will Accept Your Case, Giving Individual Treatment. You may Use it in the Privacy of Your Own Home.

You May Pay When You are Cured.

A Detroit Specialist who has 14 diplomas and certificates from medical colleges and state boards of medical examiners, and who has a vast experience in doctoring diseases of men, is positive he can cure a great many so called incurable cases;



DR. S. GOLDBERG.

The possessor of 14 diplomas and certificates, who wants no money that he does not earn.

In order to convince patients that he has the ability to do as he says, Dr. Goldberg will accept your case for treatment, and you need not pay one penny until a complete cure has been made; he wants to hear from patients who have been unable to get cured, as he guarantees a positive cure for all chronic, nervous, blood and skin diseases, which he accepts for treatment. He not only cures the condition itself, but like wise all the complications, such as rheumatism, bladder or kidney troubles, blood poison, physical and nervous debility, lack of vitality, stomach trouble, etc.

The doctor realizes that it is one thing to make claims and another thing to back them up; so he has made it a rule not to ask for money unless he cures you, and when you are cured, he feels sure that you will willingly pay him a small fee. It seems, therefore, that it is to the best interests of everyone who suffers to write the doctor confidentially and lay your case before him, which will receive careful attention, and a correct diagnosis of your case will be made free of charge; if you have lost faith write him, as you have everything to gain and nothing to lose; you must remember not one penny need be paid until you are cured. All medicines for patients are prepared in his own laboratory to meet the requirements of each individual case. He will send a booklet on the subject, which contains the 14 diplomas and certificates, entirely free. Address him simply **Dr. S. Goldberg, 208 Woodward Ave., Room 135, Detroit, Michigan.** Medicines for Canadian patients sent from Windsor, Ont., consequently there is no duty to be paid.



Improved Chester Whites and Tamworths

From this herd have been winners at leading exhibitions of Ontario and Quebec for a number of years. New importations, direct from England, will arrive in May. We have for sale choice lot of young sows, bred; also boars, 3 to 4 months old. Am booking orders for spring pigs. Pairs furnished not akin. Express charges prepaid. Pedigrees and safe arrival guaranteed. **H. GEORGE & SONS, Crampton, Ont.**

LARGE ENGLISH BERKSHIRES

A number of nice young sows, bred to my imported boar, which are due to farrow in April and May. Also a few boars ready for service. Have some nice things three, four and five months old, of both sexes. My herd won all the champion prizes at Dominion Exhibition in 1904. **WILLIAM WILSON, Box 191, Brampton, Ont.**

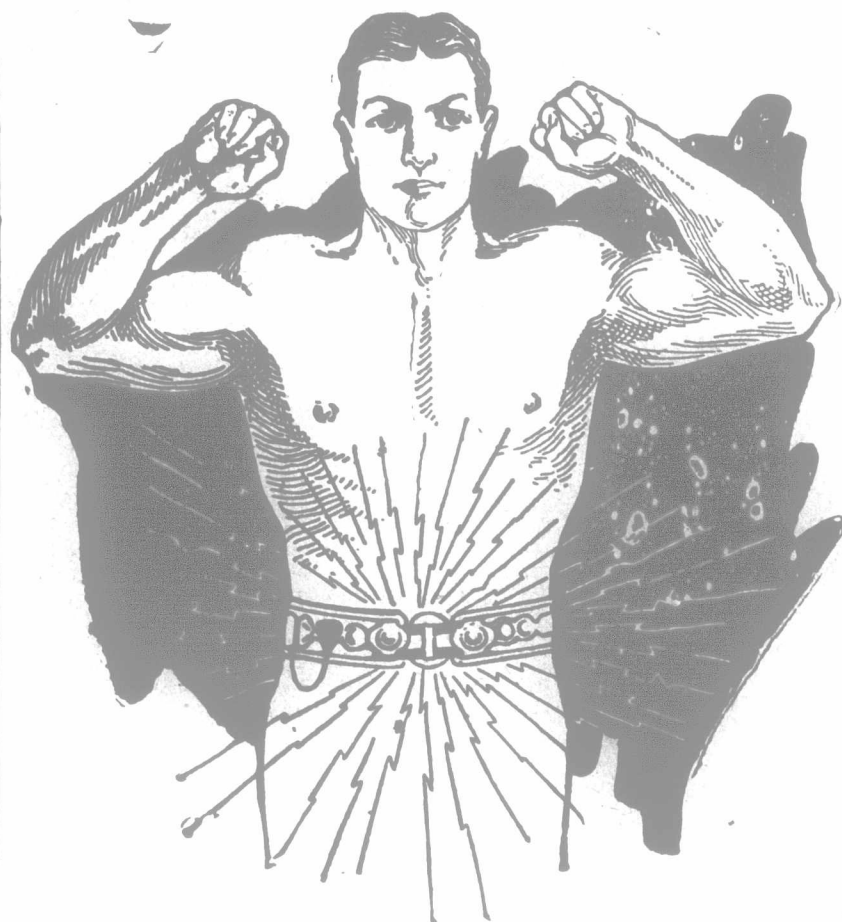
RIVER VIEW FARM

ROBERT CLARKE, Importer and Breeder of **Chester White Swine** Pigs shipped not akin to each other. For price and particulars, write **41 COOPER STREET, OTTAWA, ONT.**

MAPLE GROVE YORKSHIRES FOR SALE.

Pigs from 2 to 7 months old, from imported and home-bred sires; sows in farrow. Reduced prices for 30 days. One extra large Toulouse gander and two Pekin bantam cockerels. **T. J. COLE, Box 158, Bowmanville.**

LOST STRENGTH



Varicocele, Weakness and Loss of Vigor are quickly and forever cured by the Grand Product of Nature, Dr. McLaughlin's Electric Belt. Send for Free Book.

WEAK MEN, BRACE UP!

Stop the Drain Upon Your Vitality Before it has Destroyed all Your Happiness and Strength.

Don't allow this daily waste to take away all the pleasures of living; don't see yourself losing your nerve force, your manhood, when a cure is at hand. You know that you are growing older and weaker every day; and that unless you cure yourself now you will soon be a wreck. You have pains and aches, dizzy spells, despondency, confusion of ideas, weak back, stomach trouble, constipation, and are growing weaker in every way. Cure yourself now and enjoy happiness for the rest of your life.

Dr. McLaughlin's Electric Belt

With Electric Suspensory for Weak Men, which carries the current direct to the weak parts and cures all weakness of men, varicocele, etc. It develops and expands all weak muscles and stops physical decay. No case of Falling Vigor, Varicocele or Debility can resist the powerful Electric Suspensory. It never fails to cure. With Belts for weak men, no charge.

I don't ask anyone to buy my Belt on speculation. I don't ask you to take any chances of a failure. I take all the chances of curing you. If you are suffering from **Rheumatism, Lame Back, Lumbago, Sciatica, Varicocele, Nervous Debility, Constipation, Lost**

Energy, resulting from exposure and excesses in young and middle-aged men, write to me. Offer me reasonable security and I will make a man of you, and

It Will Cost You Nothing Until Cured.

This drain upon your power causes Kidney Troubles, Rheumatism and Stomach ailments. You know it's a loss of vitality and affects every organ of the body. Most of the ailments from which men suffer can be traced to it.

I have cured thousands of men who have squandered the savings of years in useless doctoring. My Belt is easy to use; put it on when you go to bed; you feel the glowing heat from it (no stings or burns, as in old style belts), and you feel the nerves tingle with the new life flowing into them. You get up in the morning feeling like a two-year-old.

Well and Strong for Three Years After.

Dr. McLaughlin:

Dear Sir,—I am well pleased still with the good your Belt did me. It strengthened my nerves and built me up, and I am well and strong now for the past three years since wearing your belt. I think there is nothing better. Yours very truly, J. G. Walker, Camilla, Ont.

Fully Satisfied With the Treatment.

Dr. McLaughlin:

Dear Sir,—I am satisfied with your Belt, and don't require any more treatment. I quit wearing the Belt seven or eight months ago, and am fully satisfied. Yours very truly, John D. Cameron, Lochlash, Ont.

Would Not Take Any Money for His Belt.

Dr. McLaughlin:

Dear Sir,—Since I commenced to wear your Belt I have gained nineteen pounds in weight. I have worn it about two months altogether. I had some difficulty at first with it, but that did not last long, and I would not part with it for any money now. Yours very truly, R. M. Varley, Park Hill, Ont.

No man should be weak; no man should suffer the loss of that vital element which renders life worth living. No man should allow himself to become less a man than nature intended him; no man should suffer when there is at hand a certain cure for his weakness, a check to his waste of strength.

Most of the pains, most of the weakness of stomach, heart, brain and nerves from which men suffer are due to an early loss of nature's reserve power through mistakes of youth. You need not suffer for this. You can be restored. The very element which you have lost you can get back, and you may be as happy as any man that lives.

Every man who ever used it recommends it, because it is honest. It does great work, and those whom I have cured are the more grateful because the cure costs so little.

FREE BOOK. CALL TO-DAY.

If you want to feel as strong as you used to be, to feel that life is worth living, to get up in the morning refreshed and strengthened for your day's work, and to be certain that you are once more a Man among Men, don't delay writing or calling upon me. Investigate my method and I will prove to you why it will cure you. If you want this book I send it closely sealed. Call for free consultation.

DR. M. S. McLAUGHLIN, 130 Yonge Street, Toronto, Can.

Dear Sir—Please forward me one of your Books, as advertised.

Name.....

Address.....

Office hours—9 a.m. to 8.30 p.m.

CUT OUT THIS COUPON.

QUESTIONS AND ANSWERS. Miscellaneous.

REMOVING WHITWASH—BRINE FOR PICKLING PORK—DAMP POULTRY-HOUSE.

1. Could you tell me how to take old whitewash off of ceiling, so ceiling can be painted?
2. Could you tell me how to make brine to pickle pork so it would keep next summer? I do not want to dry salt it.
3. I built a henhouse, 24 x 12 feet, shanty roof, windows all in south, stone foundation, coal ashes in bottom, level with top of stone foundation, sleeping-room made frostproof; it seems to be all right. Scratching-room is one thickness of siding. It is always damp and frosty; coal ashes work up wet. Could you tell me what makes it damp and frosty? Could I cement the floor, or would it be too cold? A. S. T.

- Ans.—1. We have seen whitewash removed by scraping with a knife and then washing, but the job is rather tedious and disagreeable. If any reader knows a better way, let us hear from him.
2. In an oak barrel, containing an amount of water equal to the amount of brine required to cover the meat, dissolve ordinary salt until the brine will bear a fresh egg high enough that the area of a ten-cent piece shows above the surface.
3. Maybe the house lacks ventilation. If the apartments are connected, the vapor would naturally congeal mostly on the thinner, hence colder, wall of the scratching-room. Melting of the frost during daytime would tend to keep the room damp. If too cold, line it inside with tar paper. Look to the ventilation carefully. Perhaps the building site is damp and needs drainage. We do not see any objection, except expense, to putting in a concrete floor, provided it is covered

with 8 to 10 inches of earth, which should be changed at least once a year, the old being spread over the land.

WIRING AND PRUNING HEDGE.

- We have a hedge about nine years old; some of the trees are about one and half to two inches through; some are not very thick. Would you prefer putting wire through it?
2. Would it injure the trees to staple the wire to them?
 3. What time of the year is the best for trimming? W. W.
- Ans.—1 and 2. Wires could certainly be put through the hedge, and would be advisable if it is desired to make it stock-proof. Staple onto the strongest trees with small staples, and no injury will be done to the trees.
3. The earlier now the better, if a vigorous aftergrowth is wanted. Pruning in June tends to check growth, but keeps the hedge in shape longer.

FLAT-ROOFED BUILDINGS LEAKING.

I have two flat-roofed buildings leaking—one roofed with tar paper, coal tar and gravel, the other with three-ply roofing.

1. How can I make them tight?
2. What is the best roofing for flat-roofed buildings? D. J. M.

Ans.—1. To repair the three-ply roofing, get more of the same material and apply a patch, using tar to make the patch stick and to seal the joints. The coal-tar-and-gravel roof must be patched with more of the same material, applied hot, of course. Special tools are required and a man accustomed to the work.

2. The contractor to whom this question was referred expressed a preference for felt paper, tar and gravel, but admitted it was an open question. We would advise you to write our advertisers.

In answering the advertisement on this page, kindly mention the FARMER'S ADVOCATE.



When you come to buy harvesting machines—reapers, binders, mowers, gasoline engines—or farm implements of any kind, the one matter to which you ought to give first and most important consideration is:

What machine or implement will give you the best service? What will make the most money for you in the long run?

It's purely a matter of business with you, and you—if you are wise—are looking solely to *your own* best interests.

You have to pay the bills; you should see to it that you get the best returns for your money and not let prejudice of any kind blind you to your own best interests.

A man can't very well fool you on a horse or a bull or a hog. You can "size up" the animal and determine for yourself how much he is worth, but unfortunately it is not always so easy to tell about a machine. Poor materials covered with paint may look every whit as well as the best materials.

So you have to go farther back than the mere *looks* of a machine.

You want to know—first—something about its reputation. Has it been doing good work? Have the people who have been using it been entirely satisfied with it? Has it proved durable and dependable?

If it does good work for hundreds and thousands of farmers working under the same conditions that you work under, it is very likely to do good work for you.

Then you want to know something about the company that makes it. Are the manufacturers in position to secure good materials? Have they facilities for turning out good work? Are they interested in making machines that will give them a lasting reputation or do they want "to get rich quick" at your expense?

These are things of first importance to you in buying farm machinery or implements.

These are things which we ask you to consider earnestly before you make your purchases for 1905.

More Canadian farmers are using machines and

implements of the International Company's manufacture than of all other makes combined—not because they *have* to, but because they *want* to; they have found that the International line gives them better service, longer use, greater satisfaction and that their purchase is the best economy for the farmer.

If the International machines satisfy these discriminating buyers, they will also satisfy *you*.

The International Company has exceptional facilities for producing high-grade machines at a fair and reasonable price. Its new plant at Hamilton, Ontario, is without question one of the most completely equipped manufacturing plants of the kind in the world—a credit not only to Canada, but to the Empire.

Its products are already found, not only in every corner of the Dominion, but are exported throughout the British Empire, to the Russian Empire and other European countries, and to South America, giving a new outlet for Canadian labor and industry.

From the time the raw materials used in the manufacture of the International line of harvesting machines and other farm implements enter the chemical laboratories, where they are tested to make sure that they are of the highest possible grade, until the finished machine is loaded on a train or steamer for transmission to some distant farm, everything that human skill and ingenuity can devise to prevent mistake and to insure a perfect product is employed.

The right sort of materials, carefully graded and selected, the right sort of workmanship, the most modern up-to-date machinery, the most rigid inspection—these are the things which have given the International line the *quality* that makes them known with favor the world over.

Do you think such a reputation could have been built by poorly constructed machines?

Most assuredly not.

We ask you as a careful buyer to consider these things and then to call upon the nearest International agent and look at the line he represents. He will be glad to give you catalogs, answer questions and go into details.

These machines are manufactured by

INTERNATIONAL HARVESTER COMPANY OF CANADA, (Limited)
Works; Hamilton, Ontario, Canada.

The International lines are represented by different dealers. See them for catalogues of

DEERING AND M'CORMICK

Binders, Reapers, Mowers, Rakes, Tedders, Corn Binders, Huskers and Shredders, Gasoline Engines, Knife Grinders, Disc Harrows, Smoothing Harrows, Lever Harrows, Spring Tooth Harrows, Hoe Drills, Disc Drills, Cultivator and Seeder, Broad-cast Seeder, Scufflers, Binder Twine. Also selling agents for Chatham and Petrolia Wagons.

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